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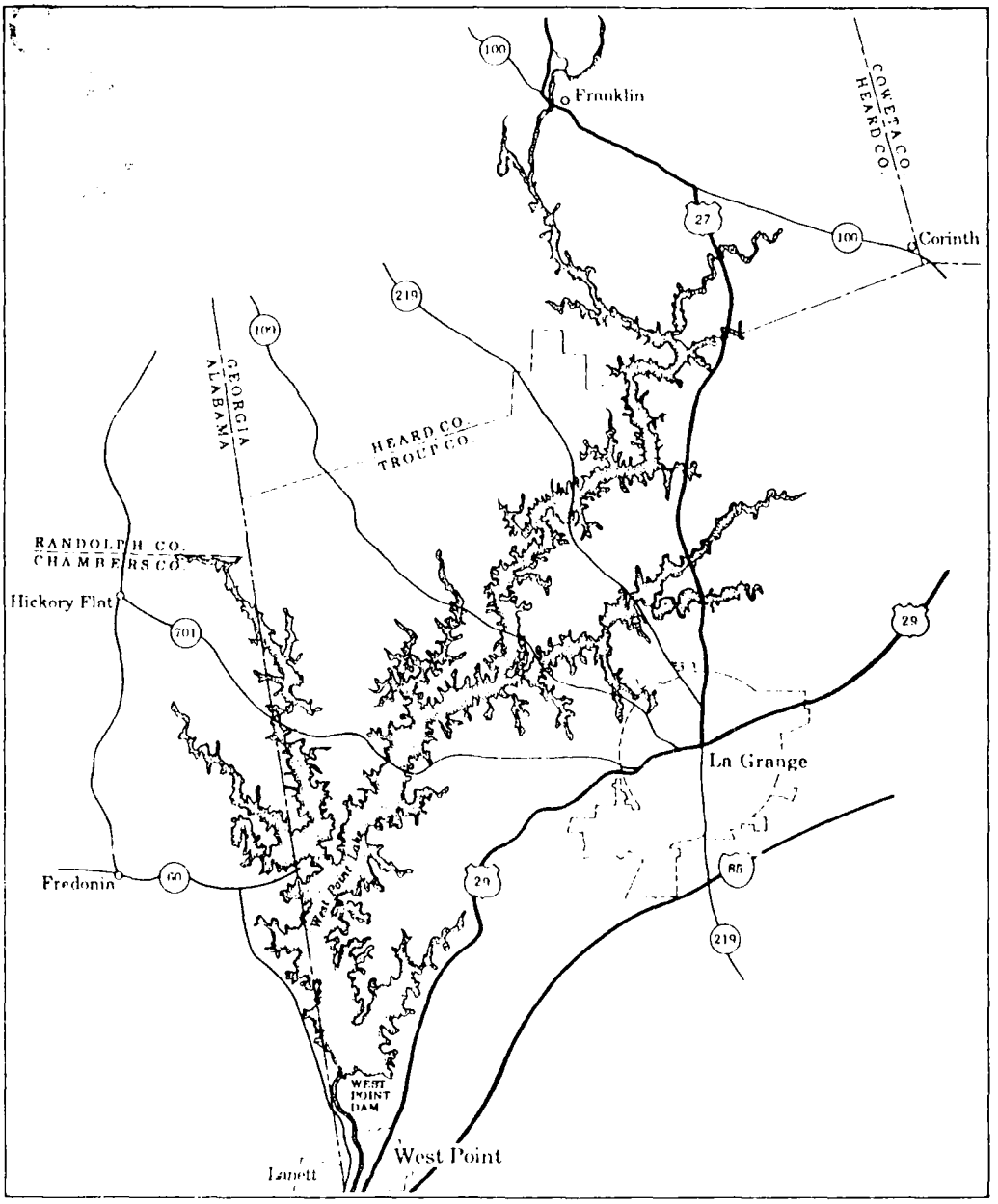
Prehistory of The Middle Chattahoochee River Valley

Findings of the 1989-1990 West Point Lake Archeological Survey and Site Testing Project



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The West Point Lake project involved archeological survey of six tracts located on the Chattahoochee River bottomlands and testing of six archeological sites. The information obtained from the lithic materials recovered by the project reveal that the occupational history of the Middle Chattahoochee River Valley began as early as 8,000 years ago and continues up to the present, with only breif periods of light use or abandonment. The ceramics uncovered by the project indicate that the most intensive use of

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the valley occurred during the Late Mississippian and Historic Creek Periods. Ceramics exhibiting plain smoothed or incised surface finishes and folded finger-pinched rim treatments dominate the collection. Although there is little doubt that these occupations are late in the cultural sequence, difficulties arise when attempting to place them within fine scale temporal sequences developed for other regions. The unique character of the Mississippian assemblages and the lack of comparative data derived from excavations hinders sequence development for the Middle Chattahoochee River Valley.

Other ceramics collected during the project include Late Archaic fiber tempered and Middle Woodland check stamped wares. Fiber tempered ceramics, exhibiting attributes similar to Gulf Coast Norwood wares, were recovered from one site and are suggestive of a cultural adaptation featuring an extensive land use system. Conversely, Middle Woodland check stamped ceramics were recovered on a number of project sites indicating a more intensive use of the area. At one of the Middle Woodland sites the excavation of a large pit feature yielded substantial quantities of check stamped ceramics and important new information on the subsistence practices used by the valley's occupants during the latter half of the first century A. D.

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PREHISTORY OF THE MIDDLE CHATTAHOOCHEE RIVER VALLEY: FINDINGS OF THE 1989 - 1990 WEST POINT LAKE ARCHEOLOGICAL SURVEY AND SITE TESTING PROJECT

Report prepared for and research funding provided by:

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New South Associates Technical Report 32

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ABSTRACT

The West Point Lake Project involved a cultural resources survey of six tracts located on the Chattahoochee River bottomlands and an intensive evaluation of six archeological sites. The survey resulted in the discovery of eight archeological occurrences and six archeological sites, three of which are recommended for further evaluation. The site testing program focused on six previously recorded sites and involved controlled surface collection, systematically placed shovel test pits, and block stripping. On the sites exhibiting deep soil deposits, the excavation of 2 by 2 meter excavation units was substituted for block stripping. Overall, the field methods implemented for this project yielded 108 projectile points or point fragments, of which 40 were identifiable as to diagnostic type; 364 non-hafted bifaces; 31 unifaces and/or miscellaneous lithic tools; 92 cores or core fragments; 9,273 pieces of debitage; and over 13,750 pottery sherds. The information obtained from the lithic materials indicates that the occupational history of the Middle Chattahoochee Valley begins as early as 8,000 years ago and continues up to the present, with only brief periods of light use or abandonment.

The overwhelming majority of the ceramics indicate that the most intensive use of the valley occurred during the Late Mississippian and Historic Creek Periods. Ceramics exhibiting plain smoothed or incised surface finishes and folded finger-pinched rim treatments dominate the collections. Although there is little doubt that these occupations are late in the cultural sequence, difficulties arise when attempting to place them within fine scale temporal sequences developed for other regions. The unique character of the Mississippian ceramic assemblages and the lack of comparative data derived from excavations greatly hinders sequence development for the Middle Chattahoochee Valley materials.

Other important ceramics collected during the project included Late Archaic fiber tempered and Middle Woodland check stamped wares. While these ceramic types comprise a relatively small percentage of the total project collections, they nevertheless represent important discoveries within the valley. Fiber tempered ceramics, exhibiting attributes similar to the Gulf Coast Norwood wares, came from one site and are suggestive of an adaptation using an extensive land use system. Conversely, Middle Woodland check stamped ceramics were recovered on a number of project sites indicating a more intensive use of the area. Check stamped ceramics are found in both the inner coastal plain and piedmont regions of the Chattahoochee River Basin, and are traditionally separated by the presence of specific minority wares in the respective assemblages. Several ceramic types typically identified as minority wares were recovered on the project sites, however, their association with the diagnostic check stamped pottery was not proven. At one of the Middle Woodland sites, the excavation of a large pit feature yielded substantial quantities of check stamped pottery and important new information concerning the subsistence practices used by the valley occupants during the later half of the first century A. D.

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Others who helped to guide our research efforts include Mr. Frank Schnell from the Columbus Museum of Natural History, who served as project Consultant; Dr. Mark Williams and Dr. David Hally from the University of Georgia; Dr. David G. Anderson of the National Park Service; and Dr. Vernon Knight from the University of Alabama, all of whom shared openly from their knowledge of the region's prehistory. Dr. Marvin T. Smith, project consultant and contributing report author, provided insight and advice from his vast knowledge of the Late Mississippian and Historic Aboriginal occupations of the Georgia piedmont which was instrumental in the successful completion of the project and beyond his contractual responsibility to this research. We greatly appreciate the assistance of all of these individuals.

Various staff members of New South Associates deserve especial thanks for their assistance over the course of the project. The project field team consisted of Dr. Charles Cobb, Debby Cobb, and Geoffrey Keeler, who performed in a timely fashion much of the tedious labor associated with the survey and site testing operations. Much of the content of this report would not have been possible without the tireless efforts of the laboratory staff who sorted, counted and weighed the project collections. Personnel responsible for this phase of the project included Tracey Fedor, David Marsh, Janet Maione, Theresa Hamby, Geoffrey Keeler, and Julie Cantley. Mr. Richard Bryant is responsible for the excellent photographic work of the artifacts and Ms. Julie Cantley who prepared the superior quality graphics deserve especial thanks.

Finally, Ms. Raymer would like to thank Dr. C. Margaret Scarry of the University of Kentucky and Dr. Gayle Fritz of the Washington University - St. Louis for their kind assistance in the identification of several plant specimens used in the ethnobotanical descriptions used in this report.

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I. INTRODUCTION

The West Point Lake Dam is located on the Chattahoochee River approximately 5 kilometers (3 miles) north of West Point, Georgia (Figure 1). Constructed by the Savannah District of the United States Army Corps of Engineers, West Point Lake serves as a source of flood control, power, recreation, fish and wildlife management, and stream flow regulation for navigation along the Apalachicola-Chattahoochee River system. These two river systems represent the largest drainages in western Georgia and eastern Alabama. The Apalachicola River Basin covers an area of 49,646 square kilometers (19,170 square miles), while the Chattahoochee River Basin is 22,402 square kilometers (8,650 square miles) in size. Approximately 8,909 square kilometers (3,440 square miles) of the Chattahoochee River Basin lies above the dam site. The lake itself creates 845 kilometers (525 miles) of shoreline and covers an area of 10,482 hectares (25,900 acres) at the 193.5 meter (635 foot) power pool elevation.

Normally, the lake level is maintained at or near the power pool elevation from June to October of each year. In November, the lake level is slowly lowered to approximately 190.5 meters (625 feet), where it remains until April of the following year. During the month of May, the lake level is once again raised to the normal 193.5 meter (635 foot) elevation. Today, the operation and maintenance of the West Point Dam and Lake is the responsibility of the Mobile District, United States Army Corps of Engineers.

Previous archeological research (Huscher 1972; Hally and Rudolph 1982) conducted in the West Point Lake project area, both before and after the lake's construction, indicated that a large number of cultural resources would be inundated or subjected to shoreline disturbances associated with the annual draw-down and raising of the pool level. In order to assess the nature and magnitude of possible impacts to these resources, the Mobile District, United States Corps of Engineers, issued a Request for Proposals (DACW01-88-0164) in order to comply with the National Historic Preservation Act of 1966, as amended, and Executive Order 11593 (Protection and Enhancement of the Cultural Environment). The work requested by this solicitation would provide information on four main project objectives:

1) The discovery of all historic properties within six designated survey tracts and a preliminary assessment on each of these properties with respect to their eligibility for inclusion to the National Register of Historic Places;

2) Testing and evaluation of six previously recorded sites;

3) Completion of National Register forms on those sites deemed eligible for inclusion to the National Register of Historic Places;

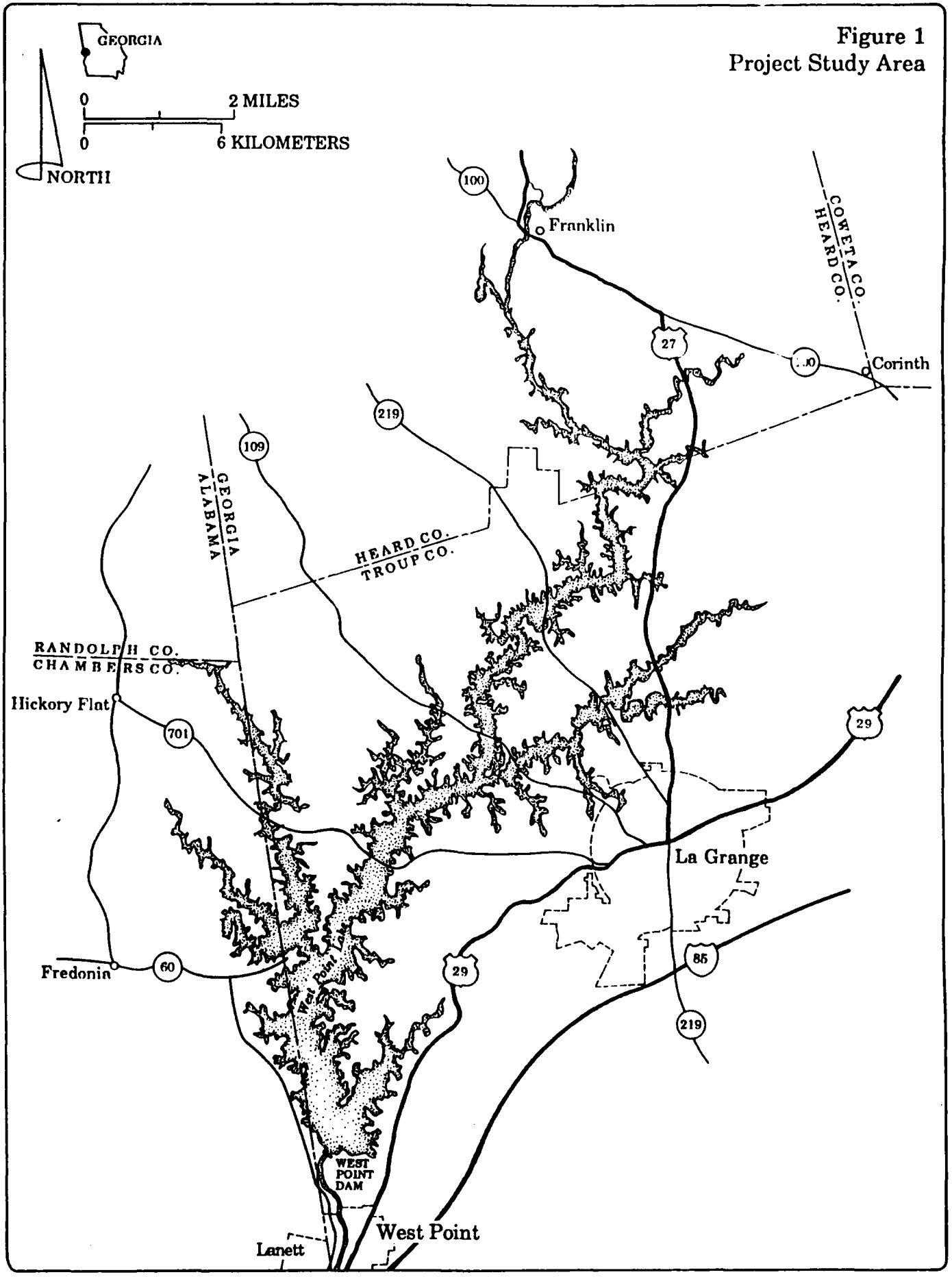


Figure 1
Project Study Area

4) The preparation of management recommendations on sites deemed eligible for inclusion to the National Register of Historic Places.

On January 3, 1989, the Mobile District informed New South Associates that they had been awarded the contract for the archeological investigations at West Point Lake. A post award meeting was held at the West Point Lake Resource Manager's Office on January 19, 1989, at which time the contract and field work schedule were reviewed. Mr. Ernie Seckinger of the Mobile Corps served as the Technical Representative to the project, and was responsible for all project management and direction from the Corps. Mr. J. W. Joseph of New South Associates served as the project Principal Investigator, while Mr. Charles E. Cantley acted as Project Archeologist. From January 23 through April 5, 1989, Mr. Cantley conducted the Phase II testing of four prehistoric sites (9Tp867, 9Tp62, 9Tp366, 9He128) exposed during the normal draw-down of the lake and one site (9He76) which is located above the power pool level. Also during this time, the required Phase I cultural resource survey of six separate areas was completed. The field crew for the 1989 season consisted of Dr. Charles Cobb, Ms. Debbie Cobb, and Mr. Geoffrey Keeler. Mr J. W. Joseph provided additional field assistance during the final week of the 1989 season.

One site (9Tp294), located below the power pool level, was inundated before the close of the 1989 field season. As a result, it was agreed to delay work at this site until the following winter. For the remainder of the year the work shifted to the laboratory to wash, catalog, and sort the project collections. The laboratory staff responsible for most of these activities included Ms. Julie Cantley, Ms. Tracey Fedor, Ms. Theresa Hamby, Mr. Steven Johnson, Mr. Geoffrey Keeler, Mr. David Marsh, Ms. Janet Maione, and Ms. Anne Wheaton. Mr. Frank Schnell served as Consultant to the project, and assisted in the interpretation of both the field and laboratory findings. While the laboratory work continued, Mr. Thomas Wheaton and Mr. Cantley began developing the computer database framework for the manipulation and final processing of the collection data.

In January of 1990, the lake level once again dropped to a sufficient elevation for access to Site 9Tp294. From January 15th through the 19th, Mr. Cantley, Mr. Keeler, and Mr. Phillip Quirk conducted the field investigations. Mr. Ernie Seckinger of the Mobile District provided additional help during this week. Upon completion of the field work, the collection was returned to the laboratory where it was processed and integrated into the existing database.

Report preparation was performed following the 1989 laboratory analysis and resumed following the excavation and analysis of site 9Tp294. Those contributing to the report included Dr. Marvin T. Smith, who assisted Mr. Joseph and Mr. Cantley in the preparation a detailed cultural synthesis for the region, Ms. Leslie Raymer (who conducted the ethnobotanical analysis and reporting), Ms. Mary Beth Reed (who provided the regional historic overview), and Mr. Thomas R. Wheaton, Jr. (the discussion of computer analysis methods).

Generally, the field procedures used on the West Point Lake Project were designed to collect information useful for describing the cultural components found in the project area. Although many sites have been recorded in the West Point vicinity (Georgia State Site Files, University of Georgia), the only concerted effort at a systematic survey of the vicinity was the work reported by Rudolph (1979) and Hally and Rudolph (1982). Over 734 sites were recorded by this survey, however, many of the site collections were small and contained few, if any, diagnostic artifacts. Due to the limited number of systematic surveys and the lack of information pertaining to specific cultural component documentation for the project area, the current West Point Lake Project attempted to maximize these data. A review of previous investigations both within and around the West Point Lake project area is presented in Chapter VI.

As per the Scope of Work, the field work undertaken on the six intensively tested sites sought to achieve the following objectives:

1.) The implementation of a field program sufficient to determine the vertical and horizontal extent of the cultural deposits at each site;

2.) The evaluation of each site's integrity and potential for future research;

3.) An assessment of each site's present condition, including an identification and evaluation of post-depositional modification, an estimate of the percentage of site deposits possessing integrity, and a feasibility study on the appropriateness of intrasite spatial analyses;

4.) An evaluation of each site's potential for yielding radiocarbon samples, diagnostic artifacts, and other potentially useful data, as well as for macro and micro floral and faunal data; and

5.) The development of a data recovery plan (if sites are determined to be eligible) that outlines the most efficient and effective field techniques for recovering significant data.

In addition to the archeological testing of six prehistoric sites, the Scope of Work called for an archeological survey of six specified tracts of land (totalling approximately 266 hectares or 658 acres). The survey (discovery) phase of the project therefore focused on the systematic inspection, shovel testing, and augering of all lands within these six areas.

Laboratory analyses were developed for the purpose of comparing both cultural-historical, and to a lesser extent, functional variation in site contents to collections recovered from other well documented sites. Since ceramics represented the largest diagnostic category of artifacts recovered by the present project, the analyses focused on the ceramic attributes thought to be most sensitive indicators of the local cultural and chronological sequence. This ceramic research was one of the principal objectives of the investigation, since

much of the local sequence, particularly within the Woodland and Mississippian periods, was poorly documented (Hally and Rudolph 1982, 1986). The lithic analysis progressed along a slightly different line of research, since very few diagnostic lithic artifacts were recovered from the sites. As a result, this analysis used a series of categories useful for interpreting the functional role stone tools played within the larger technological system of the site occupants.

The remainder of this report presents the project's findings. Chapter II provides an environmental overview for the Middle Chattahoochee Valley and West Point Lake. Chapter III discusses and evaluates the project's methods. Chapter IV presents an overview of the material culture recovered by these investigations. Chapter V presents the findings of this research, with detailed descriptions of each of the six sites tested and areas surveyed. Chapter VI presents a synthesis and chronology for the Middle Chattahoochee, informed by the current project's results, which attempts to address the cultural heritage of this region. Finally, Chapter VII offers the summary, recommendations, and conclusions derived from this research. References cited follow these report chapters.

II. ENVIRONMENTAL BACKGROUND

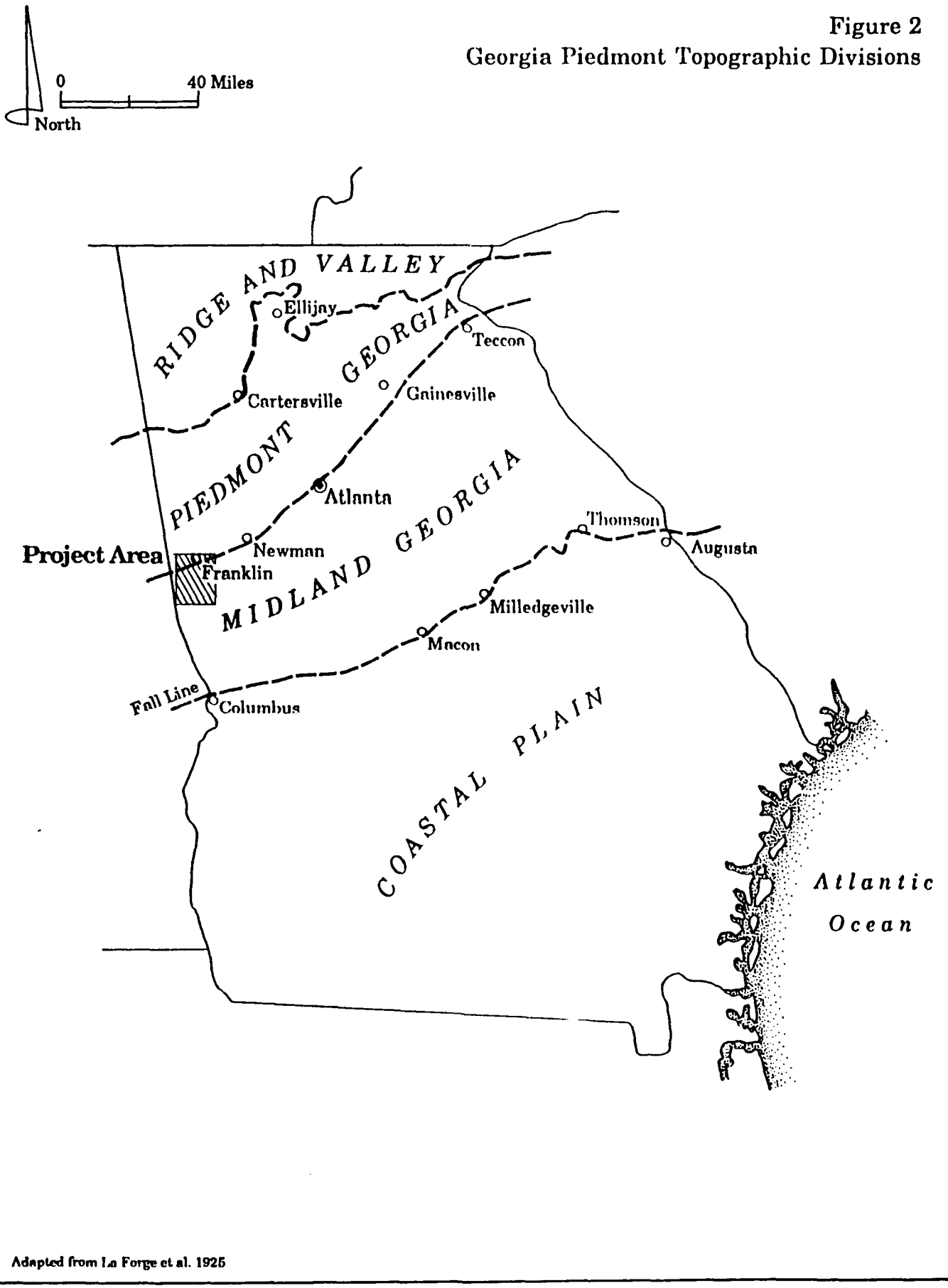
Current archeological research is concerned with the factors which influence the location and spatial relations of sites. Traditionally, these factors have included aspects of the environment; the dimensions of utilizable space available for exploitation; and the political, technological, and social development of the cultural groups under study. The purpose of this section is to focus attention on environmental variables which played a crucial role in influencing the technological and organizational components of cultural groups inhabiting the west-central Chattahoochee River drainage and its tributaries. Important among these environmental variables are climate, soils, geology, and vegetation.

West Point Lake is situated within the Piedmont Province of Georgia and is located on the Chattahoochee River approximately 56 kilometers (35 miles) north of the fall line and 96 kilometers (60 miles) south of the Ridge and Valley Physiographic Province. Surface elevations of the floodplains located in the project area vary from 170 meters (560 feet) in the south to 194 meters (640 feet) above sea level in the north. Ridge top elevations vary as much as 46 meters (150 feet) to 76 meters (250 feet) above the local floodplains (Hally and Rudolph 1982:6).

Geologically, the piedmont region consists of a great variety of mixed micaceous gneisses and schists with lesser amounts of granitic rocks. However, due to variations in the topography and drainage patterns, two separate zones known as Midland Georgia and piedmont Georgia are recognized within the region (LaForge et al. 1925: 58). The Midland Georgia Zone includes those lands north and west of the fall line to the Brevard Geologic Belt. This geologic belt runs in a northeasterly direction from the town of Franklin in western Georgia through the north Atlanta area to the Tugaloo River just north of the town of Toccoa in eastern Georgia (Figure 2). Within this zone drainages flow across the bedrock structures in a southeasterly direction to the Atlantic Ocean and Gulf Coast. The drainage pattern of Midland Georgia is dendritic, with deep, narrow, valleys and smooth upland ridges. To the north and west of the Brevard Geologic Belt, including the Tallapoosa, Atlanta, and Dahlonega plateaus, is the region known as the Piedmont Georgia Zone. Piedmont Georgia is characterized by a drainage pattern described as longitudinal or trellised; one that flows along the bedrock structures in a southwestward and westward direction to the Gulf Coast (LaForge et al. 1925:58). Upland areas within this latter zone are in many places deeply dissected and not very smooth, resulting in a landscape described as very hilly in appearance. Overall, the Piedmont Georgia Zone is most similar in its topography and drainage to the Ridge and Valley physiographic province, while the Midland Piedmont Zone resembles the interior coastal plain (LaForge et al. 1925:59).

The major soil types occurring in the project area are listed in Table 1, in addition to the principal factors accounting for their origin and distribution. These factors include parent material, relief, and drainage. The fourth category listed in this table is called the Great Soil Group and represents a composite

Figure 2
Georgia Piedmont Topographic Divisions



Adapted from La Forge et al. 1925

classification of soil types based on soil genesis and profile morphologies (Kaster 1960:57). The importance of this last category for understanding the local environments in west-central Georgia will be discussed below.

TABLE 1. Properties Influencing Soil Development In West-Central Georgia.

PARENT SOILS	GREAT SOIL MATERIAL	RELIEF	DRAINAGE	GROUP
Riverview	alluvium	bottomlands	Good	Alluvial
Chewacla	alluvium	bottomlands	Poor	Alluvial
Roanoke	alluvium	bottomlands	Poor	Alluvial
Davidson	mafic crystalline rock	Smooth	Good	Podzolic
Gwinnett	gneiss or schist	hilly	Good	Podzolic
Appling	granite, gneiss, or schist	smooth to hilly	Good	Podzolic
Madison	mica schist	smooth to steep	Good	Podzolic
Cecil	granite, gneiss, or schist	smooth to steep	Good	Podzolic
Louisa	mica schist or gneiss	hilly to steep	excessive	Lithosol
Wedowee	gneiss or granite	hilly to steep	good	Podzolic
Pacolet	granite, gneiss, or mica schist	hilly to steep	good	Podzolic

Adapted from Brooks (1976) and Kaster (1960). Slopes less than 6 percent are called smooth; those of 6 to 15 percent, hilly; and those greater than 15 percent, steep.

The type of parent material each soil was formed on is important, for it establishes each soil in a general sense within the local toposequence of soils. A toposequence (Bushnell 1942; Milne 1935) represents a group of soils that normally co-occur together on landforms, including hilltops, foot slopes, heads of streams, floodplains, or terraces. In west-central Georgia for instance, the soils can be grouped into a toposequence containing uplands (soils formed from weathered bedrock), head of streams or foot slopes (soils derived from local alluvium), or floodplains (soils formed by flooding or alluviation).

Relief and drainage represent conditions along an environmental gradient that provide information on the potential habitat structure of an environment. By combining these two factors, it is possible to distinguish between micro-habitats within broader topographic sequences. For example, an analysis of the combined effects of relief and drainage on various bottomland settings allows for the differentiation between well drained alluvial terraces and poorly drained floodplains. The analytical importance of being able to isolate and identify these spatially discrete habitats in the overall environment cannot be underestimated. Ecological studies (Hutchinson and MacArthur 1959; MacArthur and Pianka 1966; Wiens 1976) have stated that micro-habitats or "patches," as they are referred to in the literature, exert a strong influence on the adaptive responses of organisms or populations of organisms. In archeology, the adaptive response to

habitat change has affected both the settlement and economic strategies of past human populations (Flannery 1968, 1969; MacNeish 1971; Fitting 1966; Plog and Hill 1971; Judge 1971; Cable and Cantley nd; Claggett and Cable 1982). It is logical to assume that these same adaptive responses to environmental stimuli will apply to the prehistoric populations inhabiting the Chattahoochee River drainage.

The category Great Soil Group was included in the study of local soil types because it provides information on the genesis and origins of the soils in question. It is well known that the piedmont region has been significantly altered by the effects of historic agriculture and erosion (Trimble 1974). For this reason, it is necessary to view the regional landscape in a historical perspective, whereby past environmental conditions can be reconstructed. Identification of the Great Soil Groups for each of the soil series is the first step in this reconstructive process.

The project area is located within a region characterized for its abundance of Podzolic soils. These are well-developed, well-drained, and acidic upland soils that formed in a "moist climate under a deciduous forest that includes a few conifers" (Kester 1960:58). Lithosols exhibit the same distribution pattern as the Planosols, however, these soils are restricted to the steeper upland slopes of 15 percent or more. Soil development in these areas has been impeded by erosion and the movement of weathered rock fragments downslope. Today, a few areas containing Lithosols support a deciduous forest cover, not ravaged by modern agricultural practices, and are representative of the climax forest which originally covered the piedmont. Alluvial soils found along the major streams and tributaries consist of fine to medium textured alluvium eroded down from upland residual soils. With the exception of the poorly drained swampy areas, alluvial soils support a lush vegetation composed of bottomland hardwoods.

Closely linked to the climate, soil, and geology of the region is the natural vegetation. Plummer (1975) attempted to reconstruct Georgia's eighteenth century forests using the original land survey maps and corner tree identifications. Based on the results of his study, Plummer suggests that western Georgia was originally covered by oak-pine-hickory and pine-oak-hickory forests (Plummer 1975:15-16). To the north of the project area, in Haralson and Carroll Counties, both forest types were recorded. In western Haralson County the survey records suggested a forest of 50 percent pine and 16 percent post oak, but in central Carroll County the records indicated a forest of 30 percent pine and 34 percent post oak. In southeastern Carroll County, along the Chattahoochee River drainage, the forest consisted of 43 percent pines to 16 percent post oaks. Plummer (1975:8) attributed this mosaic of forest types to local environmental factors, including topography and soil conditions. In areas of steep slopes and with upland soils of micaceous origin, pines are believed to be the dominant tree specie in the overstory, while the oaks occupy the gentler slopes and areas where the soils exhibit a higher clay content.

Plummer's forest descriptions are criticized by other piedmont ecologists as being overly simplistic and failing to recognize the role of pines in transitional

forests. For example, Braun (1950) characterized the vegetation of western Georgia as belonging to the oak-pine forest community. However, the pine component of this community only occurs in secondary forests. Braun argues that the large number of pines found in the southern piedmont region are due to fire and agricultural practices, which destroyed the original climax oak-hickory forest. Wharton's (1978) studies of forest communities in North Georgia agrees with Braun's interpretations, arguing that an oak-hickory climax forest covered most of the Georgia piedmont region. Other studies conducted throughout the Southeastern United States support this general type of forest reconstruction (Oosting 1942).

Recent studies focusing on the development of oak-hickory forests in the southeastern United States recognize several habitats within this broader community (Oosting 1942; Waggoner 1975; Barry 1980; Moore and Wood 1976; Wharton 1978). The first habitat includes the white oak-post oak forest located on well drained mesic upland ridges and slopes. The forest contains a number of dominant species, including white oak (Quercus alba), black oak (Q. velutina), red oak (Q. rubra), and possibly Spanish oak or southern red oak (Q. falcata). White oak is ubiquitous throughout most of the habitats exhibiting this forest type. Red oak occupies the most fertile and mesic lower slopes, while the black oaks predominate on the higher and drier upper slopes. Other tree species associated with the white oak-post oak forest include blackgum (Nyssa sylvatica), post oak (Q. stellata), red maple (Acer rubrum), Tulip-popular (Liriodendron tulipifera), and various species of hickories (Carya spp.). The understory consists of dogwoods (Cornus florida), sourwood (Oxydendrum arboreum), and red cedar (Juniperus virginiana). Various types of pine (Pinus spp.) are found in younger stands but as the habitat matures and the hardwood canopy develops, these pines are eventually eliminated from the forest community. Commonly found shrub, vine, and herbs plant species associated with the white oak-post oak forests are serviceberry (Amelanchier canadenis), holly (Ilex decidua), sassafras (Sassafraqs albidum), persimmon (Diospyros virginiana), wild grapes (Vitis spp.), honeysuckle (Lonicera spp.), bedstraw (Galium circaezans), partridge berry (Mitchella repens), hawkweed (Hieracium venosum), and elephant's foot (Elephantopus carolinianus).

The second habitat type is the post oak-jack oak forest. This forest type is commonly found in the more xeric upland habitats occupying the driest ridgetops and south-facing slopes with rocky soils. As the name implies, this community is dominated by post oak (Q. stellata) and black jack oaks (Q. marilandica), with the latter attaining dominance in the poorest habitats. Communities of this type usually have a relatively open canopy and a mixed, but rather sparse, shrub layer. Other less frequently occurring tree species associated with the post oak-jack oak forests are white oak, red oak, southern red oak, persimmon, blackgum, mockernut hickory (Carya tomentosa), and pale hickory (C. pallida). Although the understory is sparse, dogwood, redbud (Cercis canadensis), and wild black cherry (Prunus serotina) trees are present. Shrubs, vines, and herbs associated with the this forest type include deerberry (Vaccinium stamineum), low blueberry (V. vacillans), spotted wintergreen (Chimphila maculata), muscadine (Vitis rotundifolia), greenbrier (Smilax bona-nox), blackberry (Rubus argutus),

bedstraw, pencil flower (Stylosanthes biflora), lespedeza (Lespedeza spp.), and broomstraw (Andropogon scoparius).

The third piedmont forest habitat is the bottomland forest occupying the well drained floodplains and terraces of the river valleys. This forest is quite different in composition from the surrounding upland forests. In fact, only four tree species including, white oak, post oak, southern shagbark hickory (Carya carolinae-septentrionalis), and loblolly pine (P. taeda) are found in both the uplands and bottomlands. Other boreal species constituting the overstory of the bottomland forest are willow oak (Q. phellos), sweetgum (Liquidambar styraciflua), swamp red oak (Q. Varpagodaefolia), shagbark hickory (Carya ovata), overcup oak (Q. lyrata), red maple (Acer rubrum), hard maple (A. floridanum), hackberry (Celtis occidentialis), and american elm (Ulmus americana). Willow oaks, redgums, swamp red and white oaks are the dominant overstory tree species in this habitat, accounting for nearly 66 percent of the total tree density.

The fourth and final forest habitat occurring in the piedmont is the swamp forest. Moore and Wood (1976:41) describe this type of forest as occurring in poorly drained areas which may retain standing water throughout much of the year. Tree species commonly found in the overstory include swamp chestnut oak (Q. michauxii), overcup oak (Q. lyrata), willow oak (Q.phellos), swamp Spanish oak (Q. falcatta var. pagodaefolia), sweetgum (L. styraciflua), swamp red oak (Q. shumardi), hickory (Carya spp.), and elm (Ulumus spp.). The understory shrub layer consists primarily of ironwood (C. caroliniana), hawthorn (Crataegus marshallii), and black haw (Viburnum prunifolium). Shrubs and vines include such species as atamasco lily (Z. atamasco), jewel weed (I. capensis), clearweed (P. pumila), spring beauty (C. virginica), aster (A. vimineus), lizard's tail (S. cernuus), ditch stonecrop (P. sedoides), sedges (Carex spp.), japanese honeysuckle (L. japonica), and poison ivy (R. radicans).

The diversity of plant life in the project area provided suitable habitats for an abundance of animal species. Shelford (1974:59-119) classifies environments similar to those found in the project area as the Southern Temperate Forest Biome. Dominant species contained within this biome are deer, wapiti, wolves, mountain lion, black bear, bobcat, gray fox, raccoon, fox squirrel, eastern chipmunk, and numerous bird species (Shelford 1974:23, 57, 59-60). Early accounts of aboriginal groups living in the piedmont region indicate the indians hunted as many as 27 different mammal species (Lefler 1967:120). Economically, the most important game species were bison, bear, elk, and deer, which provided large quantities of meat from a single kill. Other smaller, but useful, game species included raccoon, beaver, muskrat, weasel, gray squirrel, opossum, turkey, and passenger pigeon. Today, historic land use patterns have extirpated many indigenous animal species from the region.

Climate is an important variable for it imposes specific limits on the economic development of social groups. The affect it has on economies is particularly significant when considering human populations practicing

horticulture and/or agriculture, whereby temperature and precipitation set limits on the types and quantities of foodstuffs that can be grown. In the project area, the climate is categorized as warm and moist, with short, mild winters, long, hot and humid summers, and pleasantly moderate transitional seasons. Precipitation comes mostly in the form of rain and is well distributed throughout the year. The average annual precipitation rate calculated over a 24 year period for the western Georgia piedmont region is approximately 52 inches a year (Brooks 1976:66). The average daily minimum for January is 33.9 degrees Fahrenheit while the average daily maximum for July is 89.9 degrees Fahrenheit. Most importantly, the average length of the freeze-free season is over 195 days, which is sufficient to accommodate most middle-latitude crops (Clay, Orr, and Stuart 1975:100). A summary of the paleoecological data for the southeastern United States indicates that this climatic regime has remained fairly constant in the southeastern United States piedmont region for the past 7000 years (Cable 1982:674-683).

III. FIELD AND LABORATORY METHODS

INTRODUCTION

The principal goals of the West Point Lake Project were to test and evaluate six archeological sites located along the shoreline of the reservoir and to survey six areas omitted from previous investigations of the project area (Figure 3). Since the testing of known sites and the survey of previously unexplored regions represent different phases of archeological investigation, each is discussed separately below.

ARCHEOLOGICAL SURVEY PHASE

Field data collection procedures employed during the 1989-1990 West Point Lake Project varied according to the level of investigation undertaken. A survey was required for approximately 658 acres (266 hectares) contained within six areas (Table 2) along the Chattahoochee River in the West Point Wildlife Management Area. Area 6 could only be surveyed when the lake level was at or below 625 feet, while the remaining areas were located above the normal floodpool.

TABLE 2. Designation, Topography, and Size of the Six Survey Areas

Area	Primary Topography	Acres(Hectares)
1	Levee/Terrace Remnants	185.03 (74.91)
2	Floodplain	38.43 (15.56)
3	Floodplain and Main Stream Junction	163.68 (66.27)
4	Floodplain	54.09 (21.90)
5	Floodplain and Main Stream Junction	96.79 (39.19)
6	Floodplain	119.56 (48.40)

In areas exhibiting 33 percent ground exposure or less, systematic survey was conducted following a 40 meter linear transect interval with shovel test excavations placed at 40 meter intervals along these transects. In areas exhibiting a potential for deeply buried remains (levees and floodplains), a 3 1/2 inch hand turned bucket auger was used to place an auger test at approximately 100 meter intervals regardless of ground cover (Figure 4).

Originally, it was estimated that approximately 20 percent of the floodplain areas (or approximately 48 hectares) would be subjected to augering, which, at one auger per 10,000 square meters, would require approximately 57 auger tests. Also, it was assumed that 10 augers could be excavated per personday and that

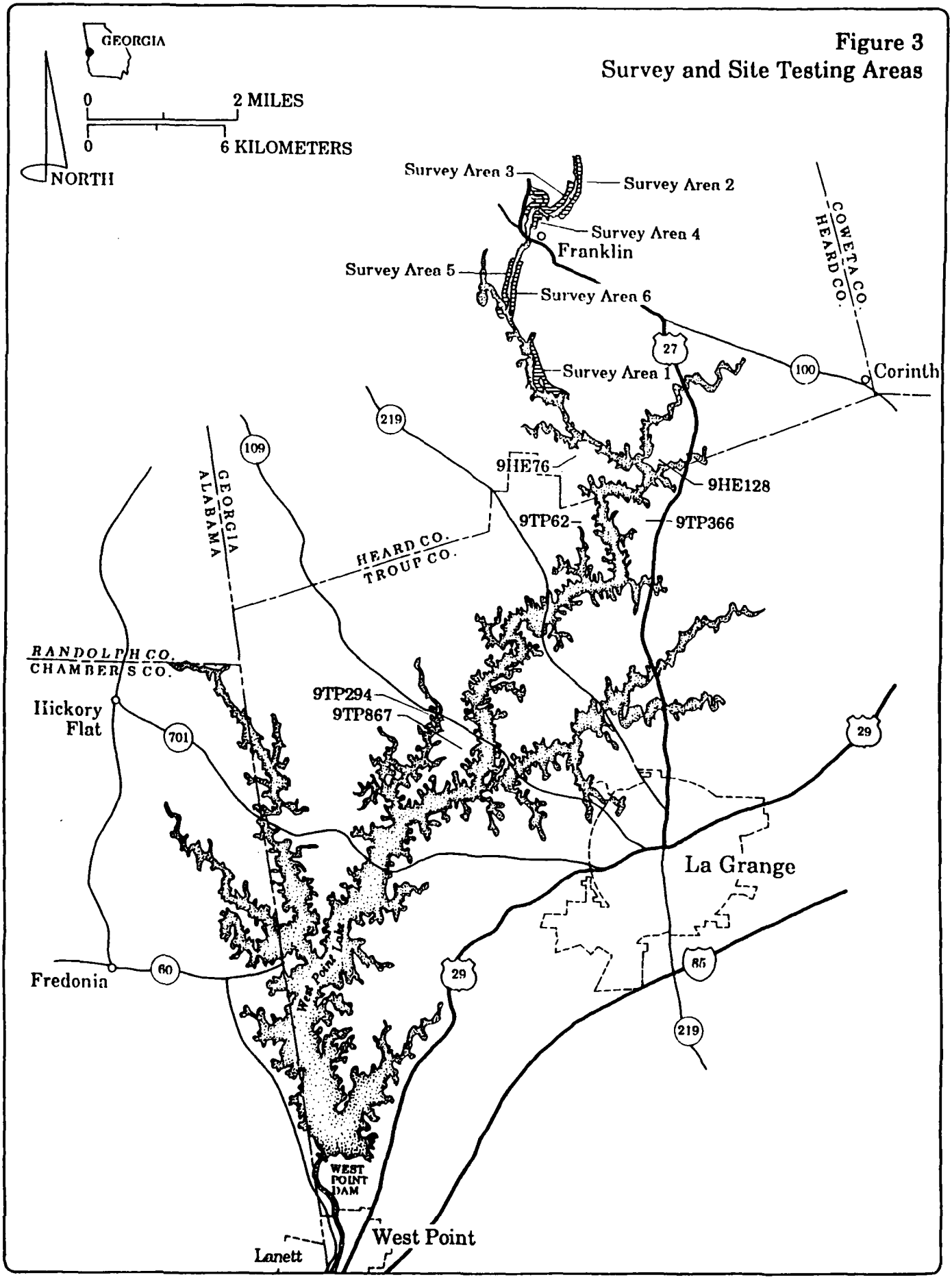


Figure 3
Survey and Site Testing Areas

Figure 4
Survey Methods

A. Shovel testing along floodplain.

B. Deep site testing with auger.

six (6) persondays would be required to complete this element of the survey. As the field work progressed, it became obvious that both of these estimates were incorrect. A much larger area was encountered which could conceivably contain deeply-buried deposits, and, due to the depths of the deposits occurring on the foodplains, the time required to excavate each auger unit took longer than originally anticipated. These two factors resulted in the adoption of a field strategy whereby an auger unit was placed every 100 meters along the shorelines and a two person crew (one to dig the test unit and one to screen the excavated fill dirt) was permanently assigned to this task. Using this procedure, a total of 150 auger tests was completed, with the average time spent on each unit being approximately one-half hour for the two person crew.

Hand-turned bucket auger excavations were capable of retrieving soils from depths of up to three (3) meters. All soils recovered from the auger excavations were screened. All positive auger occurrences were located on project field maps, and auger logs were kept for each auger unit, recording depth, soil characteristics, and any cultural material collected.

In addition to the lands that were auger tested, approximately 70 percent (or approximately 168 hectares) of the floodplains were deemed suitable for shovel testing. It was estimated that one shovel test per 1,600 square meters would require a survey project total of approximately 1,050 shovel tests. Furthermore, it was assumed that each person would complete 15 screened shovel tests per person day, resulting in 70 persondays to complete this element of the survey. These estimates proved to be a fairly accurate reflection of the amount of land to be covered and the time it took to accomplish this task.

The procedure for excavating shovel test units involved the standard round shovel excavations with all soil removed from these excavations (approximately 30 cm in diameter) screened through 1/4 inch hardware cloth mesh. Detailed notes were taken on each positive shovel test, recording its location, the soil stratigraphy encountered, the environmental setting, and the types of cultural materials present. The locations of all excavations producing cultural artifacts were noted on the project base maps, and each positive test was noted by a discrete provenience designation. In addition to the shovel transects, areas judged to have good site potential, but not located along a transect line, received a judgmental excavation. All artifacts from shovel tests and augers were bagged by provenience and returned to the laboratory for analysis.

For standardization purposes an archeological site during the survey phase of the project was defined as the presence of 10 or more pre-1930s artifacts from: (1) any single subsurface context, (2) any two or more contiguous subsurface excavations, (3) any combination of subsurface and surface artifact occurrences within a 40 meter radius, or (4) surface contexts within a 40 meter radius. Occurrences of less than 10 artifacts from any of the contexts defined above were considered as isolated finds. The locations of all isolated finds were placed on project field maps; however, no additional excavations are recommended for such

occurrences. A Georgia State Archeological Site Form was completed for each new site and archeological occurrence discovered during the survey.

ARCHEOLOGICAL TESTING PHASE

The second phase of the field work operations involved the testing of six previously recorded sites. The goal of this testing program was to assess these sites in terms of the National Register of Historic Places eligibility criteria. Previously recorded information pertaining to the six sites visited during the 1989-1990 investigations is summarized in Table 3.

TABLE 3. Sites Tested

Site	Period	Midden	Elev †	Impacts	Acres (Hectares)
9He128	Archaic-Hist. Indian	30 cm	>625'	Erosion	2.79 (1.13)*
9Tp294	Archaic-Mississippian	10 cm	>625'	Erosion	1.15 (0.46)††
9Tp867	Hist. Indian	0 cm	<635'	Erosion	3.53 (1.43)*
9He76	Archaic-Mississippian	"shallow"	>635'	Deep Plowed†	1.48 (0.60)††
9Tp62	Woodland-Miss.	"shallow"	>629'	Erosion	3.41 (1.38)**
9Tp366	Archaic-Woodland**	deep	>630'	Erosion	0.42 (0.17)**

Note: Unless otherwise noted, data is from project Scope of Work.

* data from site file quad map

** data from state site form

† data from Rudolph (1979)

†† data from Hally and Rudolph (1982)

Following the Scope of Work, two basic approaches were adopted for the testing program: systematically placed shovel test units and hand stripping of small blocks on heavily eroded sites with virtually no midden (9He76, 9Tp867, 9Tp62), and the placement of 2 by 2 meter square excavation units and systematically placed shovel test units on sites with middens (9He128, 9Tp294, 9Tp366).

The first goal of the testing operation was to determine the limits and distribution of cultural materials present at each site. To accomplish this goal, all sites included in the testing program were shovel tested and/or surface collected. Shovel tests were excavated along 10 meter grid transects until two consecutive negative tests were encountered on a particular transect. Information concerning each shovel test unit's results were recorded on a provenience card, and the location of all units were noted on the site topographic

map. The goal of the shovel test operation was to determine both the site boundaries and the spatial patterning of artifact densities within these boundaries. The information gained through this operation was then used to determine if the excavation of test units or hand stripping of small blocks was the most appropriate means for further investigating each site.

The subsurface integrity of the sites was examined differently, depending on the observed depths of midden deposits. Shallow sites had portions of their overburden stripped for the purpose of exposing intact cultural features. The amount of area proposed for hand stripping varied: sites 9Tp867 and 9Tp62 each had a 10 meter block stripped in the area of highest artifact density, constituting a 0.0058 and 0.0060 percent sample of each site respectively, based on recorded site dimensions. Site 9He76 was machine stripped, with a total of 200 square meters of plow zone removed at this site. This was equivalent to a 0.0279 percent sample of the site area.

Alternatively, at sites exhibiting deeper midden deposits: 9He128, 9Tp294, and 9Tp366, 2 by 2 meter excavation units were employed to explore site integrity. Originally, it was proposed that site 9He128 would have five units dug; site 9Tp294 would require three units; and site 9Tp366 would need two units. The sampling percentages for these sites, exclusive of the shovel test data, were .0015, .0021, and .0039 respectively. Although it was noted that the sampling percentages were low for a testing investigation, it was argued that these percentages were based on poorly defined site areas, and that in the course of the present testing operation the actual site boundaries would be further restricted. This proved to be a faulty assumption for several of the sites, particularly site 9Tp366, which proved to be larger than originally assumed. As a result, it was necessary to adjust the methodology at each site to compensate for the additional labor required for surface collecting and shovel testing the larger site areas. This was accomplished by decreasing the efforts on sites exhibiting little or no integrity (9Tp294, 9Tp867, and 9He128) and reinvesting these savings into the larger and more productive sites (9He76, 9Tp366, and 9Tp62).

As noted above, the placement of excavation units on the sites were determined by observed artifact densities in the shovel test and surface collection units. Fill from all excavation units was screened through 1/4 inch hardware cloth. The first step of the unit excavations required the removal of the plow zone. This zone was treated as a discrete soil strata and was excavated in its entirety. Excavation then proceeded in 10 centimeter arbitrary levels with a corresponding unit/level form completed for each excavated level. This form recorded the initial and terminal elevations; the soils encountered (with corresponding Munsell soil color designations); the presence, types, and density of cultural materials; and the presence of any features or soil anomalies. When the latter appeared, a unit sketch plan was drawn on the gridded reverse of the unit/level form. Unit summary forms were filled out at the completion of each unit. All apparent cultural features were profiled in order to insure that they were indeed cultural, and in order to determine their function and age. All feature fill was screened through 1/4 inch mesh hardware cloth, with the exception of a five (5) liter soil

sample taken from each feature. Each excavated feature was drawn in profile and plan, and photographed, and a feature form was completed. Also, general photographic views were made of each site, showing vegetation, visible cultural features, and other site attributes.

A site datum was established at each site tested, and a scaled site plan and topographic map were made using this datum. Datums were established for each unit and were assigned a set of grid coordinates relative to the site mapping datum. Also, the elevations of each unit datum were calculated relative to the site datum.

LABORATORY ANALYSIS PHASE

As the field work progressed, organization of the collections began by logging in individual artifact bags at the end of the work day. Each artifact bag from a specific provenience was assigned a consecutive bag number that was recorded both on the provenience card in the artifact bag and on a master bag list. Since each provenience received a discrete bag number (ie. multiple bags from the same provenience were assigned the same bag number), the bag number also served as the catalog accession number.

After completion of the field work, all materials were returned to New South Associates' Atlanta laboratory for analysis. Laboratory analysis began with the washing of the materials and replacing the provenience cards with new ones. This was necessary because many of the cards exhibited dirt and moisture damage gained while in the field. Once the artifacts were washed and dried, a detailed typological and functional analysis of the material culture began. As a provenience bag was selected for analysis, the contents were placed on a table and rough sorted into major artifact categories (ie. projectile points, ceramics, debitage, etc.). All potentially diagnostic artifacts as well as those possessing qualities in need of further study were identified and cataloged using indelible ink. The analysis of different artifact categories varied depending upon the sorts of information required from each. These analyses are outlined below.

Lithic Analysis

Lithic Categories

The lithic analysis began by sorting all of the lithic artifacts into ten categories, including hafted bifaces/projectile points, general bifaces (no haft element), flake blanks, unifaces, cores, debitage, hammerstones, pitted cobbles, fire cracked rock, and other lithics. These major artifact categories are described below (from Cable and Cantley 1979).

Hafted Bifaces/Projectile Points

This category represents all bifacially worked tools with haft elements. Incorporation of the hafted biface terminology into what has traditionally been called projectile points is a product of the recognition that many of the artifacts subsumed under this category are in fact multifunctional tools (Ahler 1971). The analyses conducted on this artifact category included typological and attribute analyses. The goal of the typological analysis was the assignment of the artifact to cultural-historical periods using the criteria established by Coe (1964) and Woodall (in press). The attribute analysis was designed to monitor critical attributes thought to be sensitive indicators of technological organization, procurement, and mobility strategies. Most of the attributes used in this study are derived from Binford (in White, Binford, and Papworth 1963).

General Bifaces

This category includes bifacially worked stone tools encompassing a wide variety of shapes and sizes. Previous research has indicated that tools included in this category served a multitude of functions ranging from preforms (Frison and Bradley 1980) to bifacial cores (Binford 1977; Cable 1982) In an effort to distinguish between possible functions and manufacturing processes, this category was divided into two subgroups based on size and edge characteristics. *Subgroup 1* bifaces consisted of large and often thick, asymmetrical masses of rock which exhibited minimal attempts to form a bifacial edge. Flake scars along the lateral margins of these bifaces are relatively large, resulting in a sinuous edge. These tools are believed to be early stage preforms or bifacial cores. In either case, since no effort was expended to create a finished marginal edge, they would be less effective as cutting implements. *Subgroup 2* bifaces consist of smaller, well thinned, and often symmetrical tools exhibiting intentional edge straightening by direct percussion or pressure flaking. These tools are thought to represent late stage preforms or finished bifacial cutters and/or scrapers.

Flake Blanks

This category represents flakes produced early in the reduction sequence which are of sufficient size to be used in the manufacture of a tool. Cable and Cantley (nd:132) characterized artifacts within this category as "thick, roughly trapezoidal to ovoid shaped Levallois-like flakes with single or multiple ridges on the dorsal surface." The particular advantage of this tool category is its flexibility to perform a multitude of possible functions (scraping, cutting, etc.) depending on the nature of the required task.

Unifaces

This category is composed of flake tools including utilized and modified flakes. No effort was made to distinguish between possible uniface types based on size and shape categories, edge angles, or degree of edge modification. It is

believed that this artifact category represents expediently manufactured cutting and scraping implements.

Cores

This category consists of large masses of various rock types which have no observable bulb of percussion and exhibit one surface where flakes (one or more) have been detached. This category serves as a source of material for the production of all other lithic tool forms. Also, cores themselves can function as tools or preforms if necessary.

Debitage

This category consists of the manufacturing and maintenance by-products of the chipped stone industry. Materials placed within the debitage category were further divided into five subgroups representing a proposed reduction sequence (cf. White, Binford, and Papworth 1963). *Subgroup 1* represented the initial reduction of a core whereby the flakes detached at this stage retained cortex covering over 90 percent of their dorsal surfaces. Flakes which were classified as belonging to this subgroup were called primary flakes. *Subgroup 2* follows Subgroup 1 in the reduction sequence and flakes within this group exhibit less than 90 percent cortex on their dorsal surface. These flakes were called secondary flakes. *Subgroup 3* represents the terminal end of the reduction process as flakes are small (<30mm in length), well formed, and exhibit more pronounced curvature of their ventral surface. Flakes of this type were called tertiary flakes. *Subgroup 4* represents flakes that are so broken or unidentifiable as to preclude their inclusion into one of the other categories. *Subgroup 5* consists of angular shaped pieces of raw material formed as a result of angular shearing presumably during the earliest stages of the reduction sequence. Artifacts within this subgroup were called shatter (cf. House and Ballenger 1976).

Hammerstones

This category represents large, rounded masses (usually cobbles) of raw material which exhibit battering along their margins. Functionally, these implements were used as a percussor in the manufacture of lithic tools and/or crushing bone and plant material.

Pitted Cobbles

This category consists of large masses of raw material with pecked or abraded depressions on one or more of its surfaces. It has been proposed that these depressions are the result of plant processing (nut cracking) and bipolar anvil flaking (Spears 1977). In many instances, pitted cobbles exhibit the same battering characteristics as hammerstones, suggesting the multifunctional and overlapping use of these two artifact categories.

Fire-Cracked Rock

This category represents masses of lithic material which have been altered by the process of heating. These materials are usually interpreted as evidence of food preparation, whereby cobbles are heated and placed in earth ovens or used for boiling water.

Other Lithics

This category includes lithic materials not falling into the above categories. Examples of other lithics would include ground stone tools, axes, adzes, and drills. These types of artifacts are rarely found on small scale survey and testing projects and their presence in the collections can be easily noted under this residual category.

Archeological research has identified a number of cultural-ecological dimensions in which past subsistence-settlement systems may vary. Most importantly, it has shown that environmental variables of resource density, resource diversity, and resource structure influence the organization of subsistence strategies, which largely determines the nature of settlement systems, patterns and degree of mobility, and demography (Binford 1980, Kelly 1983). To phrase this another way, settlement strategies are developed as the result of subsistence needs, and as such, each occupational site within the settlement system should reflect the economic importance of that location. Also, as economic pursuits vary among the different site locations, variation is expected to occur in both site characteristics and the formal-functional categories of tools used in the process of conducting activities at a site.

The methods employed during the present lithic analysis were designed to provide information on the occupational history of each site and how each site functioned in the adaptive systems of past human groups. This task was accomplished by monitoring variation in the formal and functional characteristics of artifacts along five levels, including: (1) the identification of culture-historic diagnostics, (2) functional variation in tool categories, (3) variation in the manufacturing stages of artifacts, (4) variation in raw material selection for tool manufacturing, and (5) variation in the reduction stages represented by the various artifact categories.

Lithic Raw Materials

An important component of lithic analysis is the identification of the various raw materials used for the chipped and ground stone tool industries found in the West Point Lake project area. By noting these materials and their potential source areas it is possible to gather information concerning mobility and trade patterns of past human groups. A conservative approach to lithic identification at this time is important because it is not known if these raw

material types represent variability within or between source areas, thus affecting any interpretations concerning their procurement. In the absence of supporting geological data collected from the project area, the present report used broad, general descriptive categories including: quartz, crystal quartz, chert, and metavolcanics. Presented below are the raw material descriptions for those materials that occur most frequently in the West Point Lake lithic collections. These descriptions are taken from a number of sources (Blatt, Murry, and Middleton 1972; Goad 1979; and Novick 1978, nd)

Quartz

Color: white
Knapping quality: good

The white color of quartz is a result of abundant water bubbles and "is derived almost exclusively from hydrothermal veins" (Blatt et al. 1972: 276-277). Some smoky colored quartz was also present in the project collections. This color is a "result of radiation-generated crystal defects" and is "highest in volcanic quartz" (Blatt et al. 1972:277). The massive texture of quartz reveals no crystals.

Quartz occurs as cobbles and float in piedmont soils. The uniform nature of the rock made it an excellent choice for prehistoric chipped stone tool manufacture. Quartz cobbles, which have withstood the most severe beating, had to have been of excellent quality to survive the weathering cycle, and cobbles may have been preferred above float as a raw material source.

Crystal Quartz

Color: clear
Knapping quality: good

These are large well-formed hexagonal crystals with few if any impurities. Their glassy texture was probably preferred by prehistoric flint knappers.

Chert

Color: varies
Knapping quality: excellent

Chert collected in the project area usually consisted of grays, olives, and blacks that are characteristic of the Ridge and Valley physiographic province (Goad 1979:14). The chert is fine grained with a homogeneous texture which made it an excellent choice for chipped stone tool manufacture.

Metavolcanics

Color: varies
Knapping quality: good to excellent

This rock category is a residual category for all the various types of metavolcanic rock types that occur in the piedmont region. Rock types which may be included within this category are rhyolites, tuffs, argillite, silicate, and basalt. A large degree of variability exists both within and between sources of these rocks, due to their volcanic origin. For the most part, however, these materials exhibit good knapping qualities and were used by prehistoric knappers. Bedrock materials that outcrop in the project area consist primarily of granite and gneiss, thus reducing the local opportunity to exploit good quality metavolcanic materials. This means that local knappers would have to expend a considerable amount of effort either traveling to the source areas or establishing trade networks with individuals who have regular access to these materials. The expense of procuring metavolcanic materials by local populations inhabiting the project vicinity must have been prohibitively high, given their low representation in the West Point collections.

In addition to the levels of information described above, metric measurements were taken on the identifiable hafted biface/projectile point specimens. Measurements taken included: maximum length, maximum width, maximum thickness, blade length, haft element length, and width of haft element. Summary statistics were computed for each type whenever possible (badly broken specimens were excluded from these statistics).

Ceramic Analysis

Detailed analysis of ceramic collections has been extremely rare along the Chattahoochee River in the vicinity of the project area (i.e., in the Piedmont Province). Huscher (1972) reported the presence of several traditional ceramic types related to the Historic Creek occupation at Burnt Village (9Tp9) and the Late Mississippian Lamar occupations at both Park and Avery Mounds (9Tp41 and 9Tp64). Ceramic types recovered at Burnt Village included Ocmulgee Fields Incised, Chattahoochee Brushed, and burnished ceramics, while the investigations conducted at the Park and Avery Mounds identified Lamar Complicated Stamped, Lamar Incised, and Lamar Plain sherds. Schnell's (1970) analysis of 31 whole or partially reconstructed vessels from Avery Mound added to the list of ceramic types with the inclusion of Pensacola Plain, Cool Branch Incised, and Lamar Bold Incised with "reed punctations at the bottom of the incised area" (Schnell 1970:86).

More recent Cultural Resource Management-related projects have failed to provide new or substantial information on the ceramic sequence within the West Point Lake vicinity. When ceramics were recovered, they generally fall within the range of variability noted by previous investigators or are lumped under more general categories such as Middle Woodland or Late Mississippian Lamar ceramics (Rudolph 1979, Hally and Rudolph 1982, 1986). One of the major problems impeding the development of a ceramic sequence is the lack of information derived from controlled excavations. To date, the work at Burnt Village, Avery, and Park Mounds represent the excavated data for the region.

The problem of obtaining information through controlled excavations is not an obstacle for researchers working near the fall line or coastal plain regions of the Chattahoochee Valley. Archeological excavations in these areas are responsible for the documentation of least sixteen different cultural phases or complexes spanning the Paleo-Indian through Historic Indian periods. The ceramic traditions are especially well documented, with at least twelve separate phases beginning with the Late Archaic Ceramic (2500 B. C.) and ending with Lawson Field (A. D. 1836) (Knight and Mistovich 1984). Conversely, in the Chattahoochee Valley north of the fall line, relatively little is known about the spatial-temporal characteristics of aboriginal ceramics.

One of the principal goals of the West Point Lake ceramic analysis was an intensive examination and recordation of the ceramic collections. This task was accomplished through a detailed analysis of variables and attributes for the various ceramic forms. Ceramic artifacts were sorted first by sherd form (ie. rims, bases, body sherds, etc.). Within these sherd form categories, artifacts were examined according to a set of variables including surface treatment, lip form and finish (on rims only), temper, paste. Sherd attributes were then recorded for the designated variables within each sherd form category. Table 4 lists the variables and attribute codes used in the West Point Lake ceramic analysis, while the general approach to the analysis of each of these variables and attributes is outlined below.

Surface Treatment

As a rule, all sherds recovered from excavated contexts (excavation units or shovel test pits), and all rim and decorated sherds were fully analysed. Archeological research has shown that rim sherds and decorated ceramics are the most valuable for determining the occupational histories of sites. Conversely, plain body sherds are much more difficult to place within a chronological sequence, given their lack of diagnostic attributes. However, recent research in northern Georgia and Alabama have used the attributes of surface treatment (ie. roughened, burnishing, etc.), temper, and paste to differentiate between various types and varieties of plain pottery. The ability to sort plain pottery into meaningful categories has great potential, for plain sherds usually comprise a large percentage of ceramic collections. For the current project, for instance, plain ceramics accounted for 88 percent (N=12,175) of the total ceramic collection (N=13,794). Due to the large number of ceramics within this artifact class, a sample (drawn from each site's surface collection proveniences) was randomly selected for analysis. The sample size or number of proveniences selected from each site was determined following the procedures for estimating a population proportion as outlined by Shennan (1988:310-313). The assumption of this analysis is that the surface collection procedure gathered information sufficient to document the plain sherd variability occurring at each location. Therefore, given an adequate sample size, it is possible to estimate within a certain level of probability the proportion of plain sherds exhibiting specified characteristics. To calculate the number of proveniences required for the sample at each site, a tolerance level of ±7 percent, with a 95 percent probability was employed. Using

the finite population correction factor (Shennan 1988:303), the number of proveniences included within the sample exceeded 70 percent of the total number of surface collection units at all of the sites except 9Tp294. No special sample for the study of plain ceramics was undertaken at this site.

TABLE 4. Variables and Codes Used in The West Point Lake Ceramic Analysis

VARIABLE: SURFACE TREATMENT

Code	Attributes
AD	Applique
BI	Bold Incised
MI	Medium Incised
FI	Fine Incised
FP	Finger Pinched
IC	Corn Cob Impressed
IF	Fabric Impressed
IM	Cord Marked
IN	Net Impressed
PI	Punctate/Incised
PP	Plain
SB	Brushed
SC	Complicated Stamped
SH	Check Stamped
SM	Smoothed
SN	Burnished
SP	Punctate
SR	Roughened
SS	Simple Stamped
UM	Unmodified
CM	Comb Marked
ER	Eroded
ZZ	Unidentified

VARIABLE: RIM LIP FORM

Code	Attributes
T01	Tapered
T02	Thickened
R01	Rounded
S01	Square
E01	Expanded

VARIABLE: RIM LIP FINISH

Code	Attributes
S01	Smooth
I01	Incised

VARIABLE: TEMPER

Code	Attributes
G01	Grit
GG0	Grog
S01	Fine to Medium Sand
S02	Medium to Coarse Sand
SH1	Shell
FB1	Fiber

VARIABLE: PASTE

Code	Attributes
C01	Fine and Compact
S01	Sandy and Loose

VARIABLE: RIM FORM

Code	Attributes
S01	Straight
E01	Outcurving
I01	Incurving
S02	Outsloping

VARIABLE: RIM TYPE

Code	Attributes
R01	Plain
R05	Other Decorated
R04	Folded
R02	Appliqued
R06	Interior Decorated

Other attributes observed during the surface treatment analysis included a wide range of morphological characteristics varying from carved paddle stamped designs (Figure 5), incised designs (Figures 6-8), punctations (Figure 9), and applique treatments (Figure 10).

Temper Elements

The temper elements used in the ceramic analysis are listed in Table 4. The identification of the various attributes (materials) was relatively simple, however, some difficulties arose in sorting the fine to medium from the medium to coarse sands. Hally (1979) used these two attributes in describing the ceramics recovered at the Little Egypt Site in north Georgia, but failed to provide adequate definitions for replication of his criteria by other researchers. To counter-act this problem, the present analysis employed the use of a sand-gauge that describes the coarseness of silt and sand particles from .063 mm to 2.0 mm in size. For the purpose of this analysis, sherds exhibiting a preponderance of silt or sand particles less than 0.5 mm in size are classified as fine to medium sands, while the sherds exhibiting a preponderance of sand particles exceeding 0.5 mm are classified as medium to coarse sands.

Many of the ceramics in the West Point Lake collection exhibit quartz particles (<2.0 mm) or granules (2-4 mm) in the clay matrix. Quartz is a common residual element in most of the clays occuring in the project area, and it is difficult to determine if it was intentionally introduced into the clay matrix or whether it is a natural inclusion. One criteria that has been employed by previous researchers is to observe the morphological variation (well-rounded, sub-rounded, and sub-angular, or crushed) of the quartz "temper." Generally, if the particles are sub-angular or crushed, then it is assumed that they have been intentionally added to the clay. Conversely, if the particles are well-rounded to sub-angular in shape, then it is assumed that these materials were not intentionally added to the clay, but are naturally occurring elements within the clay matrix. Observations made during the analysis of the West Point Lake ceramics indicates that much of the quartz "temper" is well-rounded, suggesting that much of the ceramic collection was not intentionally "tempered" with quartz particles. Future work in the project vicinity should focus on the identification and description of temper vs non-temper elements occurring in the local ceramics.

Shell and fiber tempered ceramics represent only a small proportion of the ceramic collection. In all, only 53 specimens were recorded as shell tempered sherds, although it should be noted that some of the fine shell tempered ceramics may not have been identified by the present analysis. However, the number of fine shell tempered wares within the overwhelmingly grit tempered assemblage should not significantly alter any forthcoming interpretations or conclusions concerning the West Point Lake ceramic collection. In addition to the shell tempered ceramics, six fiber tempered sherds were recovered during the present survey and testing project.

Site 9Tp366 (A-C). Simple Stamped Fiber Tempered (A); Complicated Stamped (B, C).

Figure 5
Simple and Complicated Stamped Pottery

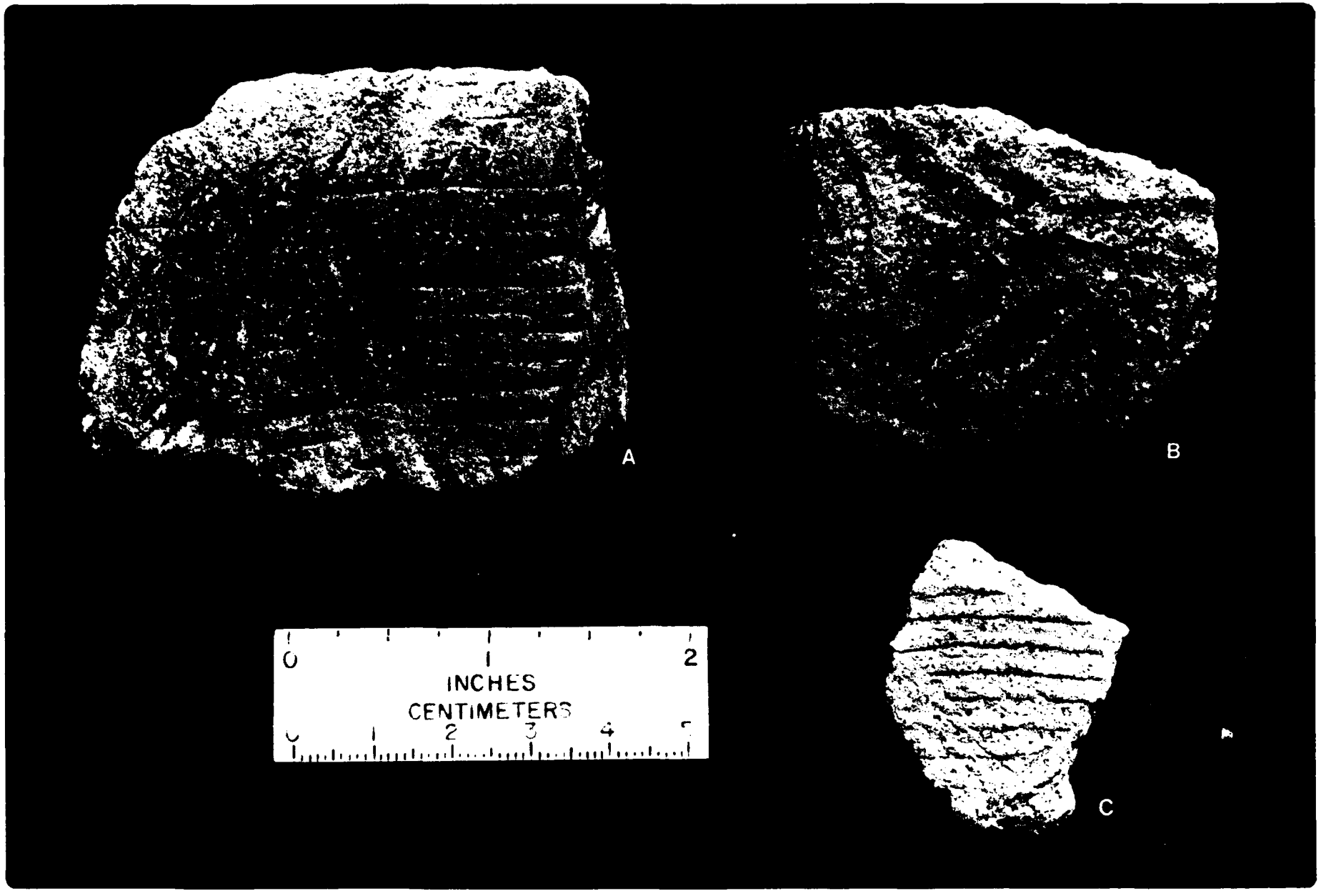
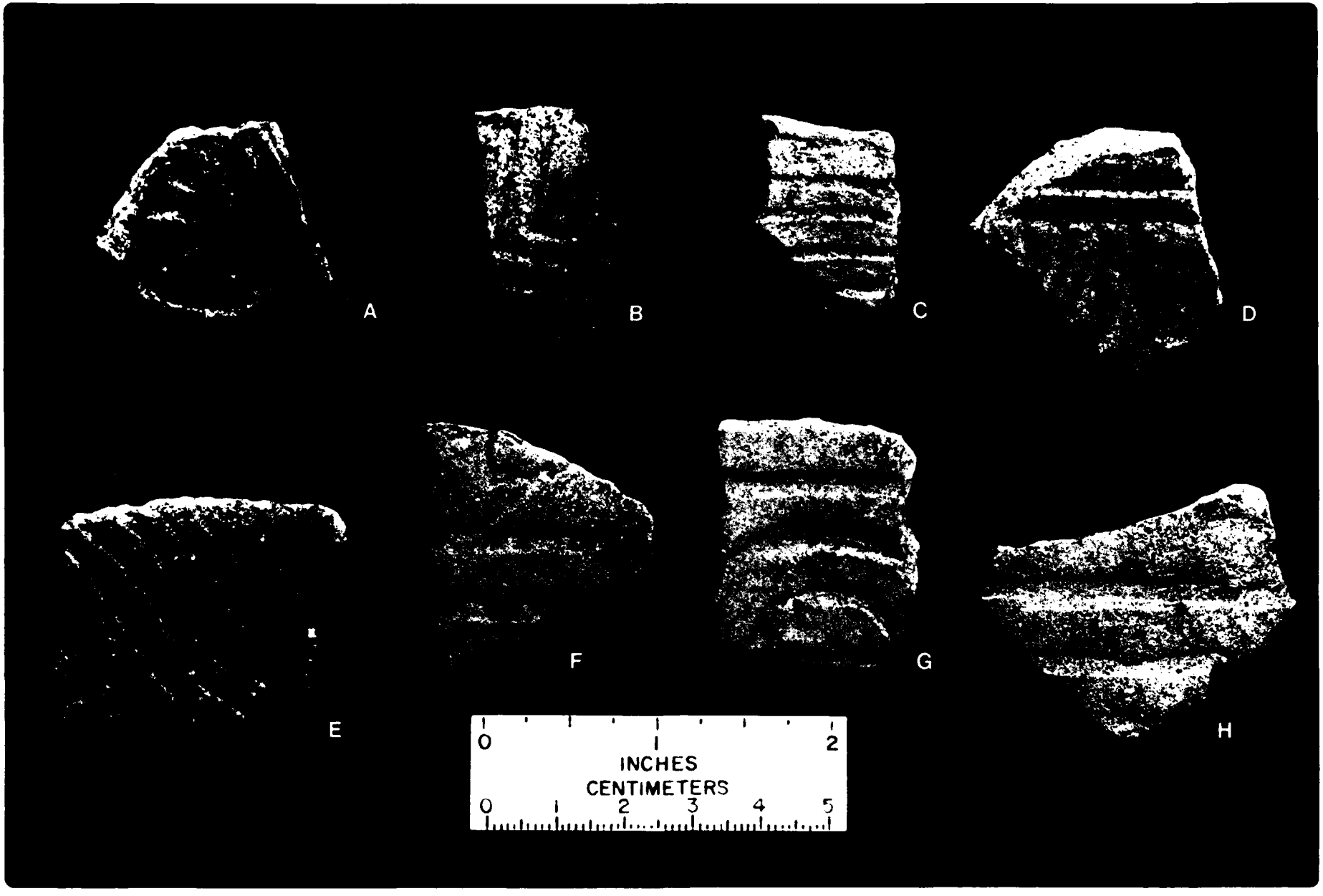


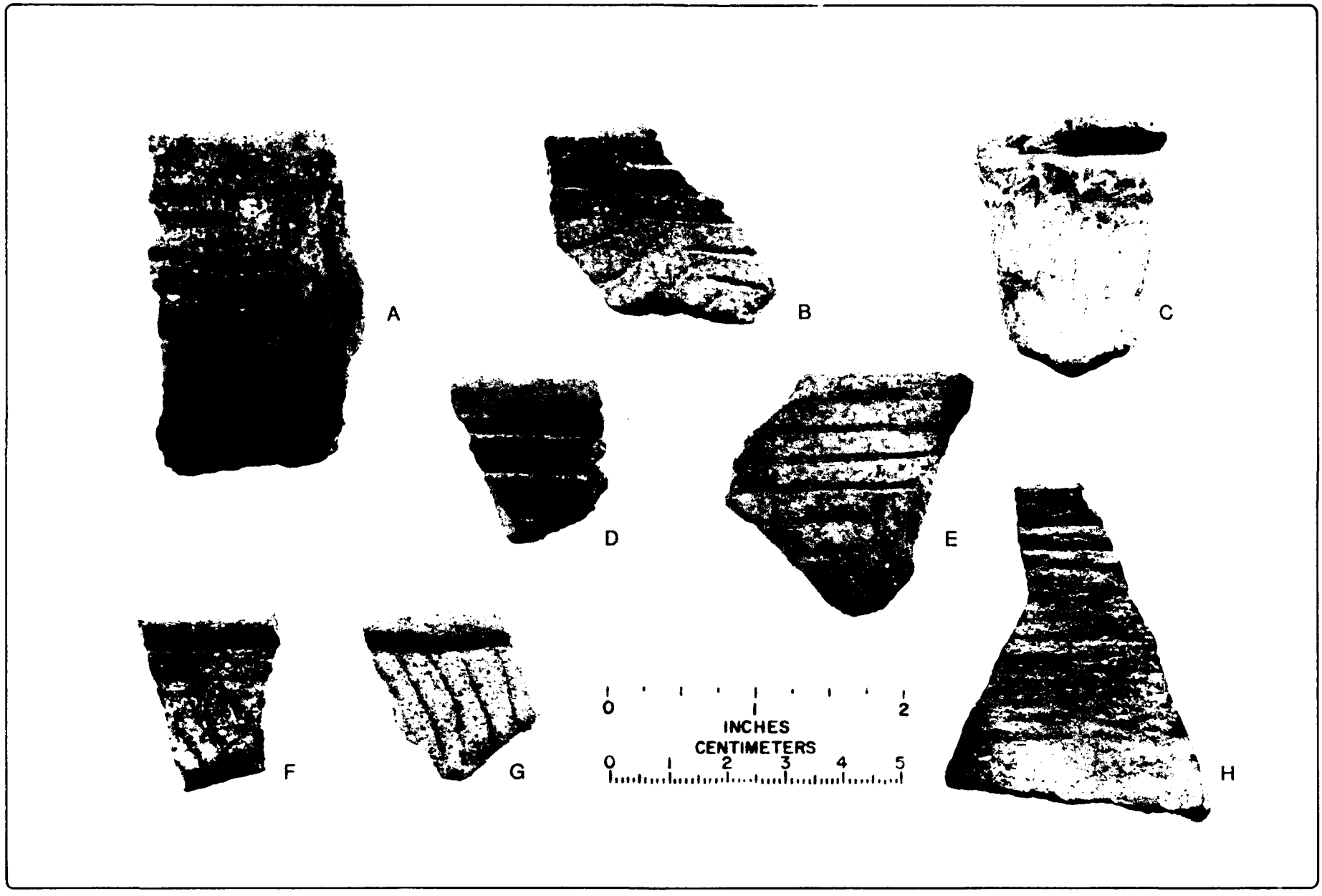
Figure 6
Lamar Incised Pottery

Sites 9Tp62 (A-C, E-H); 9He141 (D). Curvilinear Designs (A, D, E, H); Linear Designs (B, C, G).



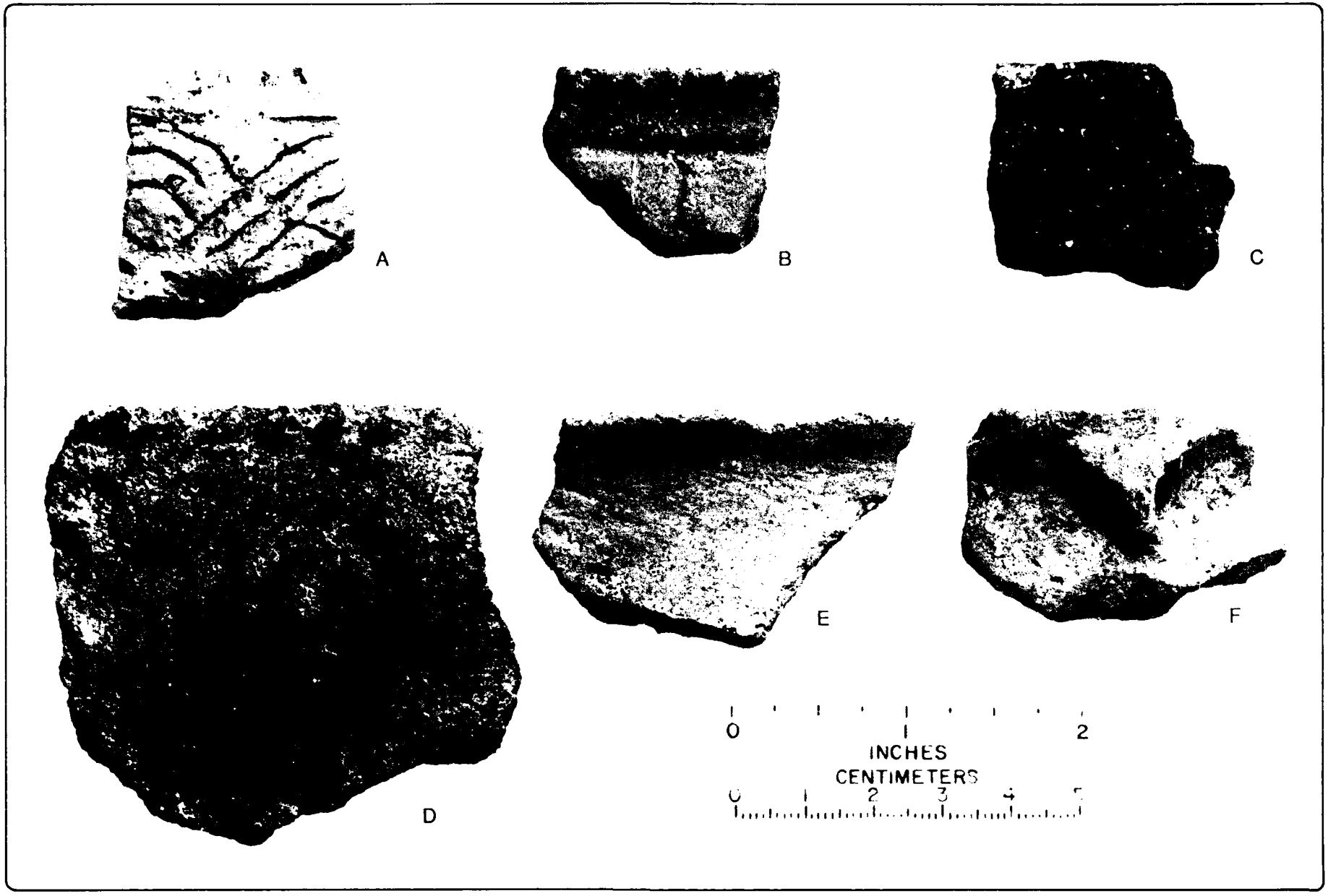
Sites 9Tp62 (A, C, E); 9Tp867 (B, F, G); 9He141 (D); 9He128 (H).
Lamar Incised Rims (A-G); Cord Marked Rim (H).

Figure 7
Incised and Cord Marked Rims



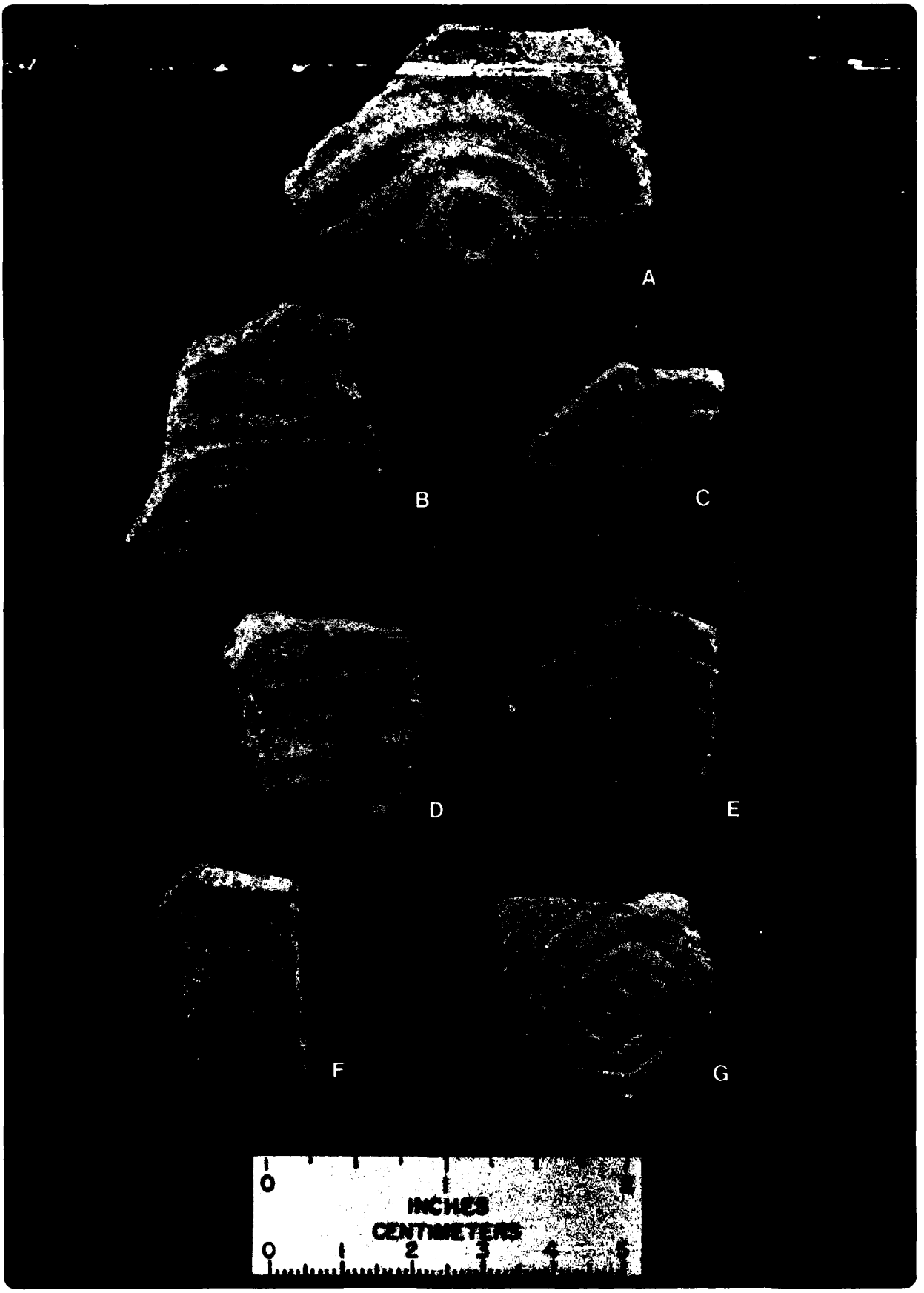
Sites 9He76 (A); 9Tp62 (B, F); 9Tp867 (C); 9Tp366 (D, E). Lamar Incised Rims (A-C); Complicated Stamped (D, E); Lamar Plain with Handle (F).

Figure 8
Incised and Stamped Rim Sherds



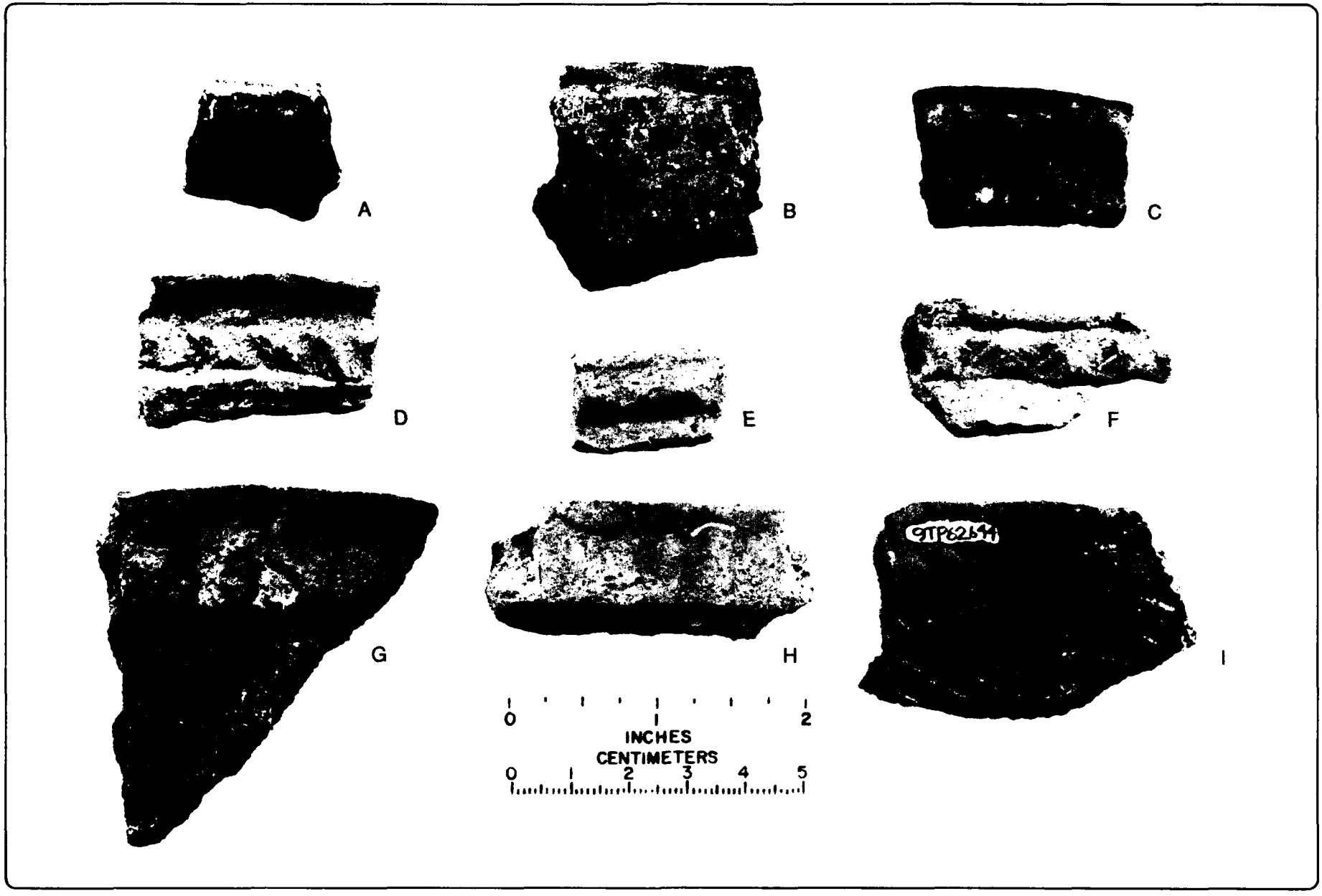
Sites 9Tp294 (A); 9He76 (B); 9Tp62 (C, E-G); 9He128 (D). Lamar Punctated and Incised (A-C); Lamar Bold Incised (D-F); Lamar Medium Incised (G).

Figure 9
Punctated and Incised Pottery



Sites 9Tp867 (A-C, E); 9He141 (D); 9Tp62 (F, H, I); 9Tp366 (G). Lamar Pinched Rims (B-H); Lamar Pinched Rim with Incising (A); Interior Decorated Lamar Rim (I).

Figure 10
Pinched and Incised Rim Types



Initially, it was hoped that an analysis focusing on variability in temper sizes and material types would yield additional information on the local ceramic traditions within the project area. However, the homogeneous nature of the West Point Lake collections in addition to the difficulties of comparing the present data to data collected from other regions, nullified much of this attributes utility for providing insightful information. In the future, it is advisable that the temper size groups be broken down into smaller size increments (smaller than the ones used during the present project) to further study possible spatial and temporal variations in the production of ceramic vessels.

Paste Attributes

Paste attributes recorded during the ceramic analysis included two attributes: fine/compact, and sandy/loose. Almost all of the ceramics (N=6,386; 99.7%) analysed for attributes of paste were classified as fine/compact. The remainder of the sherds (N=21; 0.3%) exhibited a crumbly texture such that grit could be rubbed off without much effort. These sherds were classified as sandy/loose.

Rim Form and Rim Lip Form

Five types of Rim Lip Form (rounded, square, tapered, thickened, and unidentified) and four Rim Forms (outcurving, incurving, straight, and outsloping) were recorded by the current analysis. Figure 11 illustrates a schematic representation of the range of attributes employed in rim and lip analyses.

Ethnobotanical and Special Analyses

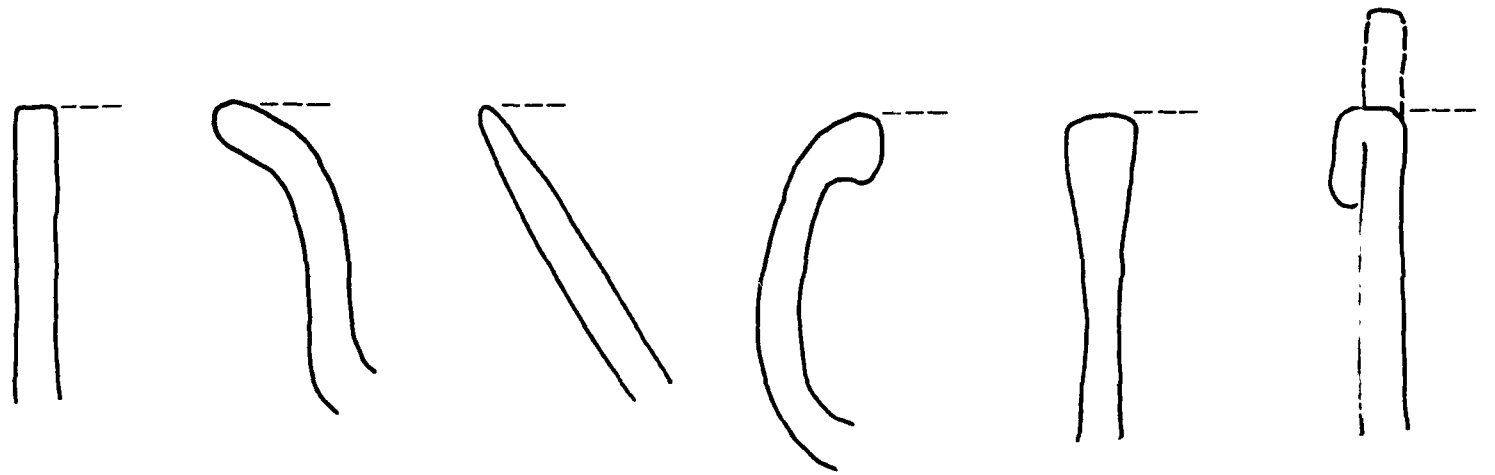
Other specialized analyses of the artifact collections included floral analysis and radiocarbon dating. Floral material recovered from excavated features were processed and identified by Ms. Leslie Raymer of Atlanta, Georgia. The methods used in the recovery of ethnobotanical remains are described in the following section. Other specialized analyses included the absolute dating of feature material. Beta Analytic Inc. located in Coral Gables, Florida, performed all radiometric analysis of the project materials.

Flotation Methods

Processing Techniques

Bulk soil samples were collected from three pit features at 9He76 and one pit feature at 9Tp62. The samples were collected from near the center and bottom

Figure 11
Rim and Lip Attributes of West Point Ceramics



Rim Form	Straight	Outcurving	Outsloping	Incurving	Straight	
Lip Form	Square	Rounded	Tapered	Thickened	Expanded	Folded

of each feature. The sampled features included two basin-shaped pits (Features 13 and 15) and one massive, bi-lobed pit (Feature 17) from 9He76 and one basin-shaped pit (Feature 5) at 9Tp62. Five liter soil samples were collected from Feature 5 at 9Tp62 and Features 13 and 15 at 9He76, while ten liter samples were taken from each lobe of Feature 17 (labelled 17-A and 17-B in this analysis). Thirty liters of soil from the Late Mississippian (Lamar Period) features at 9He76 and one 5 liter sample from the Middle Woodland component at 9Tp62 were submitted to the author for flotation and analysis.

Each sample was subjected to machine-assisted water separation in a scaled-down version of the Shell Mound Archeological Project (SMAP) flotation device described by Watson (1976). This system was selected because SMAP-style flotation systems consistently exhibit the greatest retrieval rates in recent tests evaluating macroplant recovery with various flotation devices (Pearsall 1989:91-94; Wagner 1982). The SMAP-style system used in this analysis was constructed by Ms. Raymer from nested five-gallon buckets. Except for the difference in size, this system is identical to those described by Watson (1976) and Pearsall (1989). The heavy fraction insert of this device is lined with 500 micron stainless steel wire mesh.

Because of the high clay content in the soil taken from 9He76 and 9Tp62, the flotation samples required defloculation. Therefore, each sample was placed in a ten percent solution of sodium bicarbonate and warm water for approximately half an hour. After the samples were throughly defloculated, the clay slurry that resulted from the defloculation process was gently agitated and all of the suspended charcoal was scooped out using a strainer made with 500 micron wire mesh. The clay slurry was then placed in the SMAP-type device and floated. The macroplant remains that were recovered by flotation from the SMAP device were combined with the suspended plant remains that were scooped out of the defloculated clay slurry. This combined material forms the light fractions that are analyzed in this analysis. The heavy fractions consist of the material that settled to the bottom of the screen-lined insert during the flotation process.

Thirty-five liters of soil from five soil samples from 9He76 and 9Tp62 were floated and yielded a total of 315.5 grams of recovered light fractions. The light fractions from these five samples, along with a 419.1 gm. sample of four of the heavy fractions that resulted from the flotation process, form the basis for this analysis (Table 5).

Ethnobotanical Analysis Laboratory Methods

In the laboratory, each flotation light fraction and portions of four heavy fractions were first weighed, then passed through nested geologic sieves (2.0 mm., 1.0 mm., 0.5 mm., 0.29 mm.). Each size-graded sub-sample was fully sorted under low magnification (10-25x) and all charred seeds and potentially identifiable plant remains (except wood charcoal) were removed for identification and tabulation. The analysis of wood charcoal was not budgeted for the testing phase, however these samples are included with the curation package.

TABLE 5. Proveniences, Sample Volumes, And Sample Weights For 9He76 and 9Tp62.

Bag No.	Provenience	Sample Volume (in liters)	Total Weight (in grams)	Sorted Weight (in grams)
926	9He76 Fea. 13, LF	5	42.0	42.0
933	9He76 Fea. 15, LF	5	41.0	41.0
955	9He76 Fea. 17-A, LF	10	65.9	65.9
957	9He76 Fea. 17-B, LF	10	97.5	97.5
926	9He76 Fea. 13, HF	5	142.6	95.5
933	9He76 Fea. 15, HF	5	146.6	78.7
955	9He76 Fea. 17-A, HF	10	191.2	118.4
670	9Tp62 Fea. 5, LF	5	69.1	69.1
670	9Tp62 Fea. 5, HF	5	250.4	126.5

KEY
LF - Light Fraction
HF - Heavy Fraction

The heavy fractions from one 10 liter sample, F. S. 955, and three 5 liter samples, F. S. 926, F. S. 933, and F. S. 670, were partially sorted in addition to the five light fractions in order to check the recovery rates of the flotation process. The macroplant material that was held in the 2.0 mm sieves of each heavy fraction was fully sorted, while that material which passed through the 2.0 mm sieve was partially sorted. The partial sorts of the material that was less than 2.0 mm in size ranged from 25 to 50 percent of the total (see Table 5). The subsamples of the less than 2.0 mm fractions from each sample were obtained by passing the sample fractions through a riffle-type sample splitter. In this way, 292.6 gm of the 480.4 gm of heavy fractions from 9He76 and 126.5 gm of the 250.4 gm heavy fraction from 9Tp62 were sorted.

It was found that substantial quantities of plant material from 9Tp62 failed to float when the Feature 5 (F.S. 670) soil sample was processed. This result was not unexpected, since the samples had to be defloculated before they were floated, and thus were wet when they were placed in the SMAP device. Substantial quantities of charred nutshell and three persimmon seed fragments were recovered from the Feature 5 heavy fraction. For this reason, the plant remains recovered in the heavy fraction are tabulated with the light fraction remains for Feature 5 at Site 9Tp62.

In contrast, the flotation separation of the 30 liters of soil from 9He76 was excellent. One fragment of hickory nutshell was recovered from the Feature 13 heavy fraction, while the Feature 15 heavy fraction yielded one corn cupule. The Feature 17-A heavy fraction contained five corn cupules, one corn kernel fragment, one black walnut nutshell fragment, and two walnut family nutshell fragments. The minute quantity of charred plant seeds that was present in the 9He76 heavy fractions indicates that greater than 98 percent of the charcoal from this site was recovered in the light fractions during the water separation process.

The charred plant remains collected from the 9He76 heavy fraction are not considered further in this analysis.

Seeds and other plant parts were identified with standard reference texts (Martin and Barkeley 1961; Montgomery 1977; Radford, et al 1968; USDA 1948) and the author's personal reference collection. Additionally, several taxa were forwarded to Dr. C. Margaret Scarry for identification.

Ethnobotanical Analytical Procedures

A variety of methods were employed to determine if the identifications were an artifact of a particular analytical procedure, or if they accurately reflected the structure of the data set. Three specific measures that were employed were: (1) species ubiquity, (2) species density, and (3) species abundance.

Species Ubiquity. Ubiquity analysis is used to describe the occurrence of the macroplant remains from 9He76. In this form of analysis, the occurrence of each plant type is expressed as a percentage of the total number of proveniences in which a particular taxon is present. This measure ascribes equal weight to the physical presence of a given taxon, regardless of the abundance of that plant type in a particular sample. Therefore, a sample that contains one seed of a given taxon is equivalent to a sample containing several hundred of the same seed. This analysis offers a way to assess the relative importance of various plant species and gives an indication of how common each plant type is at the site.

Species Density. Species density is used to show the count or weight of a species per liter of soil that is processed by flotation. This measure enables us to compare the relative densities of different plant taxa and is useful for standardizing raw count/weight data.

Species Abundance. Species abundance is used to measure the overall abundance of each taxon in a given macroplant assemblage. In this form of analysis, the occurrence of each plant type is expressed as a percentage of the total number of seeds that are recovered from each site. This analytical technique offers a way to assess th relative importance of each plant taxa within each macroplant assemblage.

The results of the floral analysis are presented by site within the site descriptions chapter, Chapter V.

Computerized Database and Data Reduction Process

Several factors led to the use of a computerized database for the analysis phase. First, there were a large number of proveniences recorded for the project, as well as a substantial number of artifacts. Thus artifact tracking and grouping was recognized as a major project task which could be greatly simplified through the use of microcomputers. Second, one of the products required from the artifact

data was the creation of density/distribution maps for various artifact types, and this goal was much more accurately realized through computer mapping programs. Third, attribute analyses required of the artifact assemblage were recognized as potentially being quite complex, and the accuracy of these analyses could be better assured through the use of a computer data base. Finally, the data were also to be used for statistical manipulation, which could be more readily accomplished through computer analysis. All of these factors indicated that it would be necessary to use a computerized database in order to generate the data necessary for a comprehensive evaluation and interpretation of the project's findings.

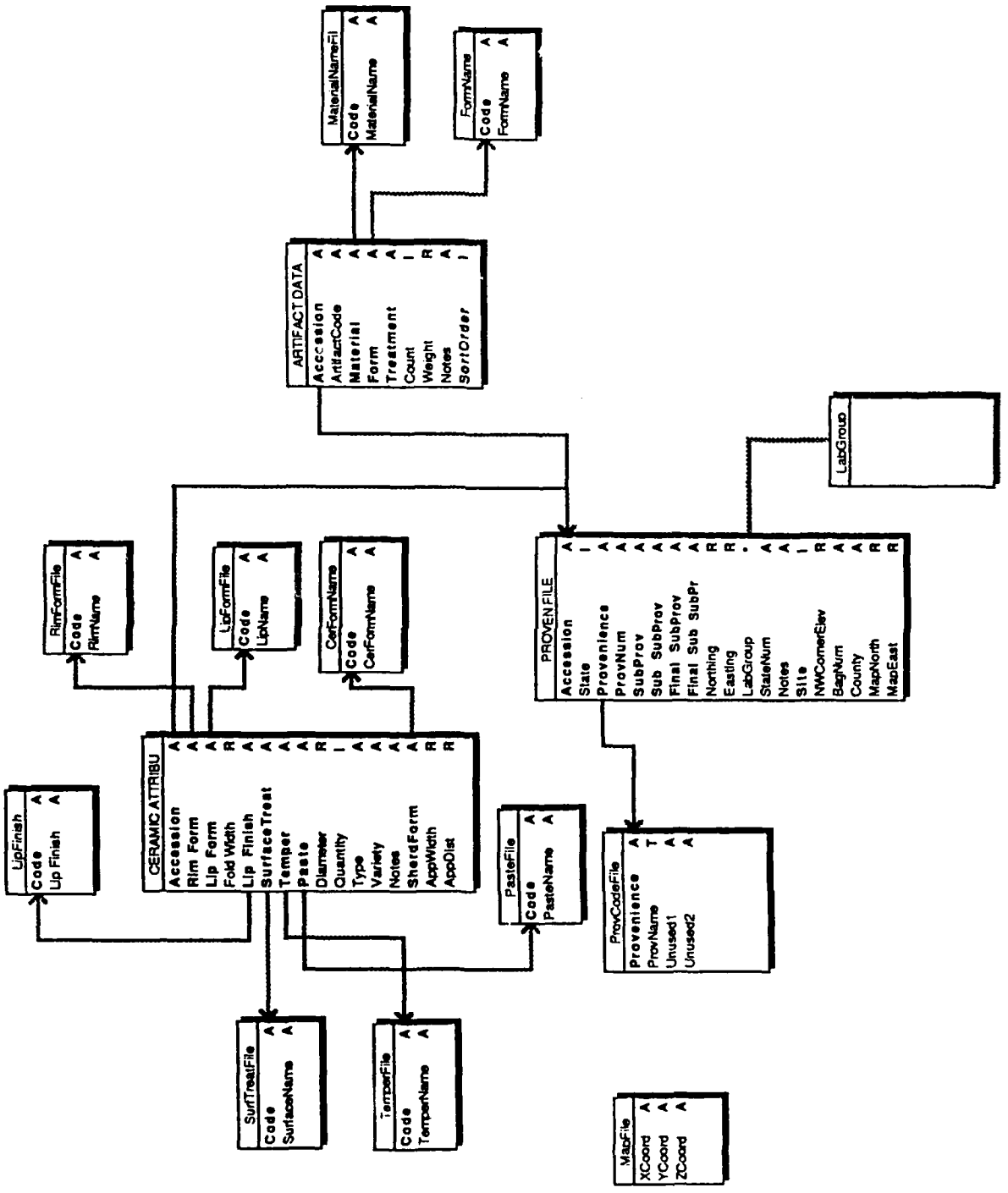
The prehistoric database program utilized for the West Point Lake analysis was organized by attributes rather than types. As prehistoric typologies are based on combinations of attributes (eg. paste, temper, and decoration) which can not always be recorded for every artifact, typological database systems do not account for many "incomplete" artifacts. Typologies are also problematical for analyses like that conducted for West Point Lake since prehistoric typologies are usually region-specific. Since only limited previous archeology had been done in the West Point region, it was recognized at the outset that materials from the project might not fit pre-existing typologies. The structure of the computerized database developed for West Point Lake was thus based on the assumption that attribute analysis would lead to the development of types. It was also assumed that the data would be used to compare the artifact types, as well as the individual attributes, among and within the sites. This would be done by comparing the actual quantities of material from the various proveniences and by the development of distribution maps.

In order to accomplish these tasks, a fully relational database was used. This database application program (essentially a high level database language) was *4th Dimension* (4D), Version 2.04, which runs only in the MacIntosh environment at the present time. For our purposes, file size and field size are virtually limitless. Because of the MacIntosh interface, 4D can be very user friendly. It can use many object oriented program (OOP) techniques, and can incorporate graphics (pictures of artifacts, for example) directly into fields in the database. The power and flexibility of this application is considered to exceed any other database available in either the PC or MacIntosh environments. Its only drawback is that it can be slow on sorts and searches.

To set up a database in 4D, one must develop a conceptual structure which is then entered graphically in 4D (Figure 12). In the present case this structure had four basic parts: (1) a provenience list to keep track of where artifacts came from, (2) a non-ceramic artifact list (labelled Artifact Data in Figure 12), (3) a ceramic artifact list, and (4) various translator lists which translated provenience and attribute codes into English for ease of understanding. These various lists, referred to as files in 4D, are linked together to take advantage of information in more than one list or file at a time.

For example, the provenience file contains a unique accession code for each provenience record. This accession number is 11 digits long and contains the two

Figure 12
Structure of West Point Lake Database



digit county code, a four digit site number, and a five digit field specimen number (or unique bag number). This combination provides a unique number for a discrete provenience which will not repeat itself at any other sites in any particular state. This allows data to be combined from various data bases in the future. Besides this unique accession number in each record, there is also information on the type of provenience (i.e. Unit, Feature, Shovel Test, etc.); the proveniences north and east coordinates within the site; the level and sublevel (or portion and sub-portion for features); the final level and sublevel, if corrections have been made since field work; the field specimen (or unique bag) number; the state number; the top elevation of the provenience; and a place or field for notes about the provenience. This latter might include information on associated proveniences, special procedures, etc.

4D allows the user to search or sort on all of these fields singly or in combination. For example, one can find all of the provenience records that are in the second level (perhaps the B Horizon) of units, or all of the shovel tests within a range of coordinates. There may be times during analysis that a subset of certain types of proveniences will be required which were not allowed for in the field proveniencing system or are not covered under the generally descriptive categories just discussed; for example the northern half of all postmolds in the northern half of the site. In such cases, there is a last field or descriptive category called a laboratory grouping. This field can hold from one to over 500 separate codes assigned by the user "on the fly." A particular individual provenience could therefore be part of several different lab groupings at the same time, such as part of all features in the north half of the site, all postmold features, features containing bifaces, or any conceivable combination of provenience variables. The laboratory grouping field allows for a dynamic and virtually unlimited means of reorganizing the material during analysis as questions arise concerning the assemblage.

All of the fields in the provenience file, except the note field, contain short alphanumeric codes. The provenience file does not contain English explanations of what these various codes mean. Coding is done to conserve disk space, speed up operations in the database, and to allow for faster and less error prone data input. When the user desires to know what a code means, "translator" files easily perform this function. They might translate a "U" in the provenience type field into "Unit", an "F" into "Feature", an "S" into "Surface", or a "C" into "Shovel Test". This is accomplished by linking the provenience type field to a short "translator" file. The "translator" file contains each of the various codes allowed in the provenience type field, and that code's English translation. When the computer encounters "C" in the provenience type field it automatically looks for "C" in the "translator" file, obtains the English equivalent, and shows the equivalent to the user. The user does not even have to know that the "C" code exists, because he can actually search in the provenience file using the term "Shovel Test" in the "translator" file. The user can also sort the provenience file on the English equivalent in the "translator" file, so that shovel tests would come alphabetically after features and before surface finds, rather than in their code order, "C" (Shovel Tests) - "F" (Features) - "S" (Surface). By not having the

English equivalent in the main provenience file for every record, and only having it occur once in the "translator" file, much disk space can be saved.

This same principal of linkage to other files to save space applies to other fields in other files, as well as to the provenience file itself. The artifact files (ceramic and non-ceramic) contain three basic types of information, an accession number field, a quantity field, and one or more attribute fields. For each artifact or group of artifacts having the same attributes and provenience there is one record in the artifact file containing the accession number, the attribute codes, and the quantity of artifacts with that accession number and set of attributes. The artifact files do not contain all of the provenience data, only the accession number. By linking the artifact files to the provenience file with the accession number fields, all of the data contained on each provenience is available to the artifact files without the necessity of repeating it for each record. When the user wishes to find all of the artifact records in the non-ceramic artifact file from a particular provenience, he can search in the artifact file for all records with the correct accession number (although it is very difficult to remember several thousand separate provenience accession codes), or he can simply search in the provenience file for all the material from "U" 1, Level 1. Carrying this linkage one step further, he can even search for the word "Unit" in the "translator" file which is linked to the provenience file, which is in turn linked to the artifact file. All of this searching in other linked files may sound confusing, but it is taken care of automatically by 4D.

Just as the artifact files can use the information stored in the provenience file via a linked accession number field, and the provenience file can find the English translation of provenience type codes in a "translator" file via a linked code field, the artifact files themselves are also linked to various "translator" files which can automatically translate the various artifact attribute codes into English. For example, the non-ceramic artifact file contains various attribute fields besides the accession number field (linked to the provenience file) and the quantity field. These include a material field, containing a code for the material the artifact is made of (chert, quartzite, etc.); a form field, containing a code for the form of the artifact (biface, tertiary flake, etc.); and a combined field containing the material and form together, called the artifact code field. The material and form fields are each linked to a separate "translator" file which translates its codes into English. This saves space in the non-ceramic artifact file by using short codes rather than long English equivalents.

The ceramic artifacts were separated from the non-ceramic artifacts in the West Point Lake database since many of the classes of attributes only occur with one category or the other. The ceramic file has separate fields for rim form, lip form, rim fold width, surface treatment, rim diameter, and several other attributes which do not occur on non-ceramic artifacts. By separating the artifacts into non-ceramic and ceramic files, more disk space was saved, and the sorts and searches were completed faster. However, this dichotomy did make it cumbersome to get total artifact counts from proveniences, since totals had to be made in two files and then added together.

IV. MATERIAL CULTURE

As noted, the prehistoric sequence and cultural material attributes of west Georgia and the West Point Lake Region are poorly documented and understood. While specific attributes of the artifacts assemblages recovered from the current investigations will be presented within the site discussions offered in the following chapter, and will also inform the regional synthesis and prehistory sequence presented in Chapter VI, the general characteristics of these artifacts are presented here in order to assist researchers of the region seeking to compare or contrast artifact collections in a broad perspective. This discussion is based on the analytical traits presented in Chapter III, and offers statistical occurrences and typological identifications for both the lithic and ceramic assemblages.

PROJECT LITHICS

Hafted Bifaces

This section describes the identifiable hafted biface (projectile points) types discovered during the West Point project. The name of the type is followed by the name of the person who described the type and, in parentheses, the publication in which the description appeared. All measurements are in millimeters (mm). The following descriptions are taken from Taylor and Smith (1978); Taylor, Cantley, Anderson, and Kern (1984); Coe (1964); Keel (1976); and Cambron and Hulse (1975).

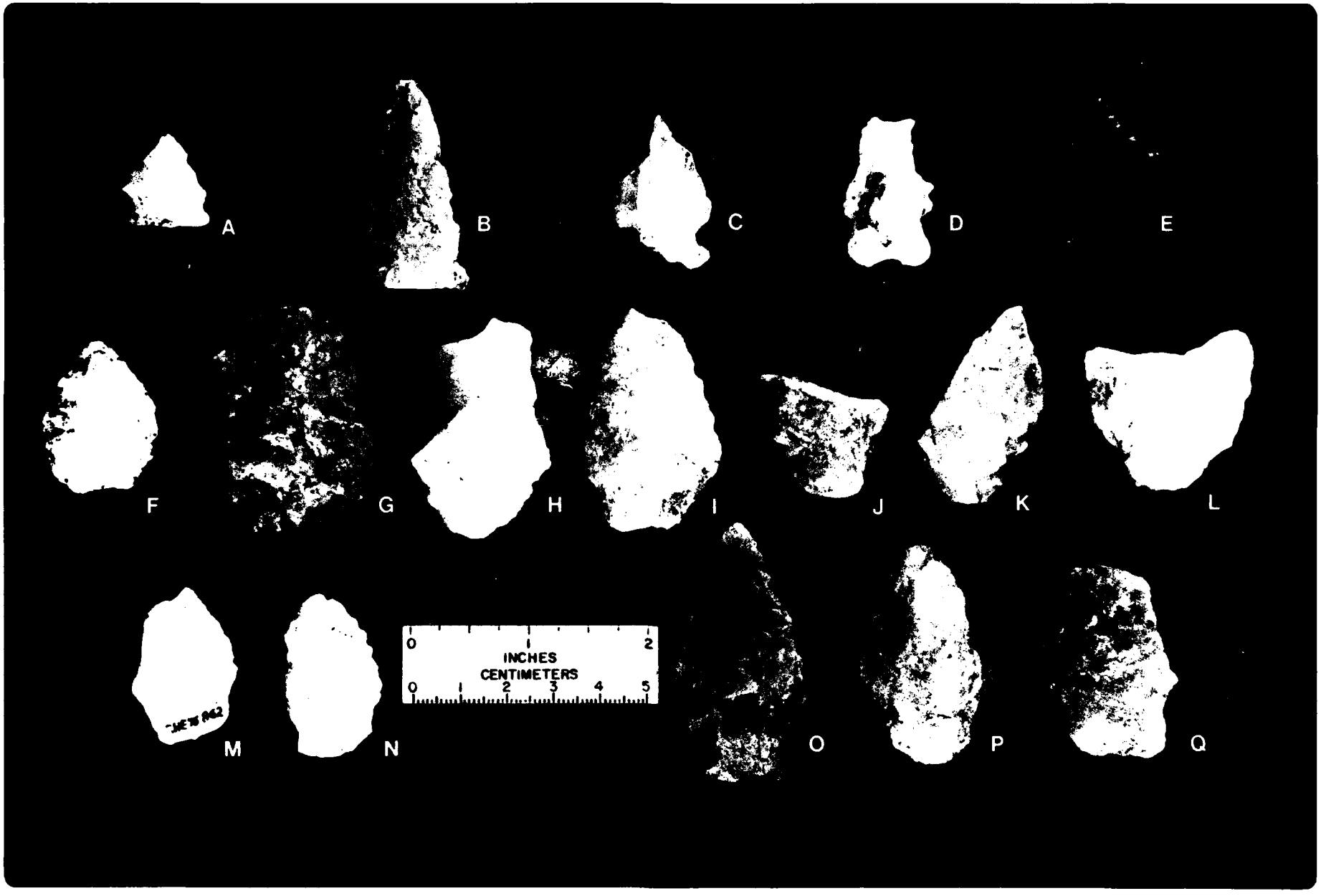
Palmer Corner-Notched (Figure 13a), Coe (Coe 1964:67)

This Early Archaic projectile point type is a small corner-notched (although some specimens appear to be side-notched) biface. The blade edges may be rounded, or concave, but usually straight with deep serrations along the margin. The shoulders are often barbed and usually exceed the width of the base. The corner-notches are generally small and U-shaped, producing a small expanded base. The base is straight and ground which distinguishes this type from the Kirk projectile points. The West Point Lake project recovered only one quartz specimen of this type from Site 9Tp294. This particular specimen exhibited extreme reworking with the blade being greatly reduced in size. The measurements of this specimen are given below:

	LENGTH			WIDTH			
	Axial	Blade	Tang	Shoulder	Prox. Haft	Dist. Haft	Maximum Thickness
Count	1	1	1	1	1	1	1
Mean	21.4	13.4	8.0	18.0	17.8	15.6	7.0
S	-	-	-	-	-	-	-

Sites 9Tp294 (A, F, G, I-L, O); 9Tp62 (B, H); 9He134 (C); 9Tp867 (D); 9He76 (E, M, N, P, Q). Palmer (A); Pine Tree (B); Damron (C); LeCroy (D, E); Morrow Mountain (F-L); Halifax (M, N); Guilford (O-Q).

Figure 13
Early and Middle Archaic Projectile Points



Pine Tree (Figure 13b), Cambron (Cambron and Hulse 1975:104)

This Early Archaic projectile point type is a medium sized, side-notched biface. The blade edges may be recurvate or straight, with deep serrations along the margin. The shoulders are not barbed and do not exceed the width of the base. The side-notches are generally small and U-shaped, producing a small expanded base. The basal edge is thinned and incurvate. The West Point Lake project recovered only one specimen of this type at Site 9Tp62. Its measurements are given below:

	LENGTH				WIDTH		
	Axial	Blade	Tang	Shoulder	Prox. Haft	Dist. Haft	Maximum Thickness
Count	1	1	1	1	1	1	1
Mean	46.0	34.5	11.5	21.0	21.0	18.0	8.0
S	-	-	-	-	-	-	-

Damron (Figure 13c), Cambron (Cambron and Hulse 1975:40)

This Archaic projectile point type is a medium sized, side-notched biface. The blade edges may be excurvate or straight, with shallow serrations along the margin. The shoulders are tapered and do not exceed the width of the base. The side-notches are small and narrow and situated near the basal edge. The basal edge is straight to excurvate with beveling on both faces. Surface collections made from a number of pre-shell mound sites along the Tennessee River suggest that this point type may date to the Early Archaic period. The one specimen of this type recovered during the project was located at Site 9He134 and was manufactured from quartz. Its measurements are given below:

	LENGTH				WIDTH		
	Axial	Blade	Tang	Shoulder	Prox. Haft	Dist. Haft	Maximum Thickness
Count	1	1	1	1	-	1	1
Mean	33.0	22.0	11.0	20.8	-	12.4	8.6
S	-	-	-	-	-	-	-

LeCroy (Figure 13d, e), Kneberg (Cambron and Hulse 1975:77)

This Early Archaic projectile point type is a medium sized, bifurcated-stemmed biface. The blade edges are straight and rarely incurvate, with deep serrations along the margin. The shoulders are expanded and may be horizontal and tapered. The haft element is characterized as an expanding base that has been deeply bifurcated. The auricles are rounded and are usually ground along the edges. Three LeCroy projectile points (one chert and two quartz) were recovered during the West Point Lake project. Two of the three points were recovered at Site 9He76 with the remaining point found at Site 9Tp867. The chert point exhibits an asymmetrical blade morphology, which may have resulted from

various resharpening episodes. Summary measurements taken from these points and point fragments are given below:

	LENGTH				WIDTH		
	Axial	Blade	Tang	Shoulder	Prox. Haft	Dist. Haft	Maximum Thickness
Count	1	1	1	1	2	2	1
Mean	33.0	21.0	12.0	22.0	19.4	17.65	6.8
S	-	-	-	-	2.82	2.33	-

Morrow Mountain Rounded Base (Figure 13f), Cambron (Cambron and Hulse 1975:90)

This Archaic projectile point type is a medium to large sized, rounded base point. The blade edges are excurvate and are rarely serrated. The haft area is rounded and thinned with an acute distal end. Grinding of the haft element is infrequent. In North Alabama and Tennessee, these points frequently occur on Early Archaic sites, however, excavations of deeply stratified sites in North Carolina indicate a Middle Archaic association. The West Point Lake project recovered only one specimen of this type at Site 9Tp294. Its measurements are given below:

	LENGTH				WIDTH		
	Axial	Blade	Tang	Shoulder	Prox. Haft	Dist. Haft	Maximum Thickness
Count	-	-	-	1	-	-	1
Mean	-	-	-	25.0	-	-	10.4
S	-	-	-	-	-	-	-

Morrow Mountain (Figure 13g-l), Coe (Coe 1964:37)

This Middle Archaic projectile point type is a small to medium-sized stemmed biface. The blade may be excurvate, straight, or incurvate. The shoulders are usually well-defined and may vary from horizontal to tapered, inversely tapered, or even barbed. The shoulders are often expanded, probably due to resharpening. The stem is generally pointed, contracting, or rounded. When contracted the base may be straight or incurved. The present survey and testing project recovered six specimens; five from Site 9Tp294 and one from 9Tp62. All of the points were manufactured from quartz. Their measurements are given below:

	LENGTH				WIDTH		
	Axial	Blade	Tang	Shoulder	Prox. Haft	Dist. Haft	Maximum Thickness
Count	-	1	5	5	5	6	6
Mean	-	32.0	15.48	30.6	11.42	21.95	13.20
S	-	-	2.96	2.87	2.45	2.30	2.62

Halifax (Figure 13m, n), Coe (Coe 1964:108-109)

This Middle Archaic projectile point type is a medium-sized shallow side-notched biface. The blade may be excurvate, straight, or incurvate depending on the degree of resharpening each specimen exhibits. The base and side-notches are usually ground. The cross-sectional view of this point type is bi-convex. The West Point Lake project recovered two specimens of this type at Site 9He76. Their measurements are given below:

	LENGTH				WIDTH		
	Axial	Blade	Tang	Shoulder	Prox. Haft	Dist. Haft	Maximum Thickness
Count	1	1	2	2	2	2	2
Mean	34.6	22.6	12.0	21.85	13.25	17.30	10.35
S	-	-	0	1.2	1.76	0.99	0.49

Guilford (Figure 13o-q). Coe (Coe 1952)

The Guilford point is a lanceolate point which varies greatly in length, width, and thickness. The blade is usually excurvate but may be nearly straight. The base is most often incurvate but can be excurvate or even rounded. The West Point Lake project recovered three specimens of this type; two at Site 9He76 and one at 9Tp294. All three specimens were manufactured from quartz. Their measurements are given below:

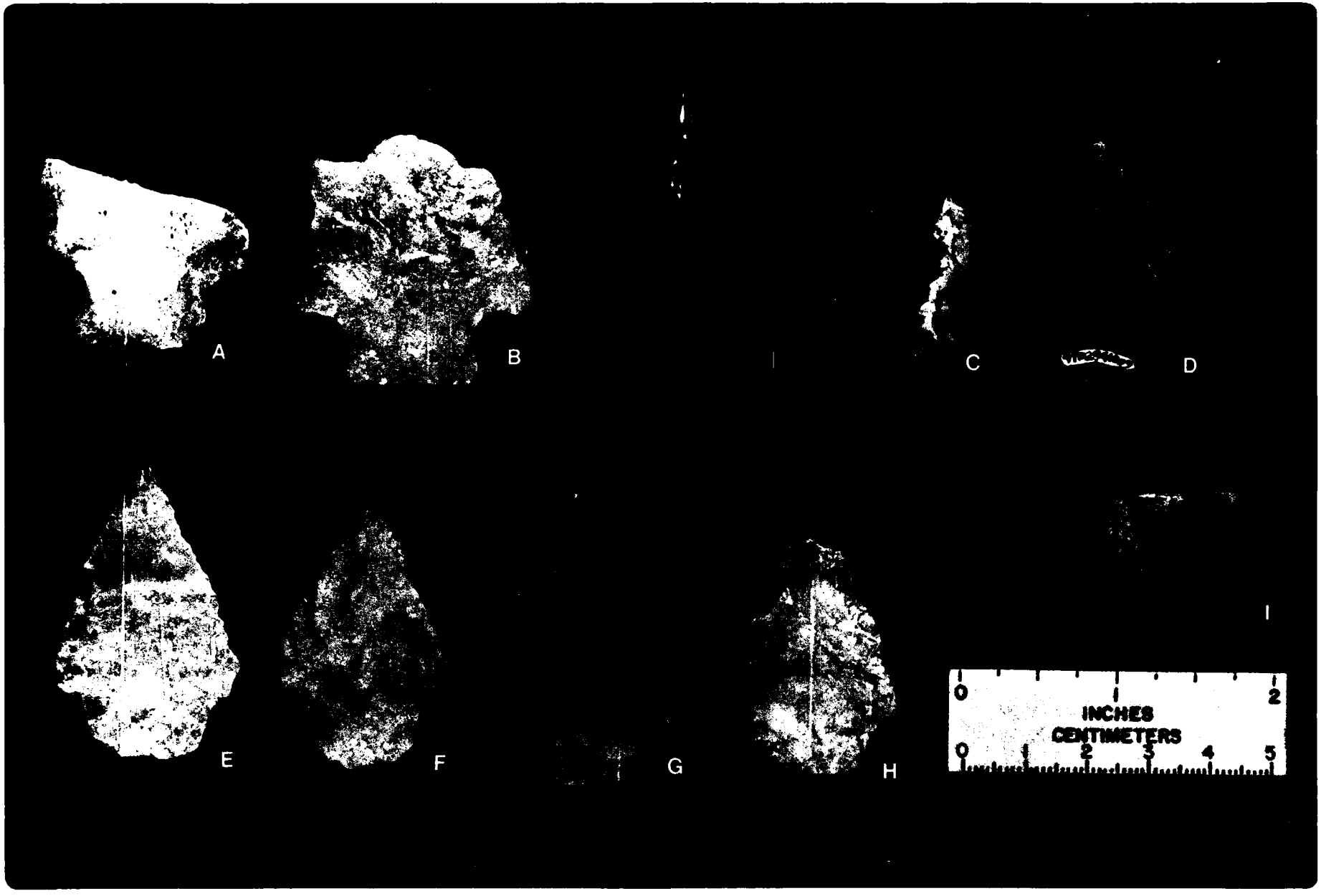
	LENGTH				WIDTH		
	Axial	Blade	Tang	Shoulder	Prox. Haft	Dist. Haft	Maximum Thickness
Count	2	2	3	3	3	3	3
Mean	51.4	33.5	17.0	21.95	15.23	21.73	13.43
S	6.22	10.6	3.47	5.87	2.87	0.64	1.80

McIntire (Figure 14a, b), Hulse (Cambron and Hulse 1975:86)

This Late Archaic projectile point type is a medium-sized stemmed biface. The blades are usually excurvate although some specimens exhibit a single straight edge margin. The shoulders are usually well-defined and may vary from horizontal to tapered or inversely tapered, with short barbs. The stem is generally expanded with incurvate side edges. The basal edge exhibits thinning and is usually straight or slightly incurvate. The present survey and testing project recovered two specimens of this type; one at Site 9Tp294 and one at Site 9Tp366. Both points were manufactured from quartz. Their measurements are:

Sites 9Tp294 (A, C, D, H, I); 9Tp366 (B); 9Tp867 (E-G).
McIntire (A, B); Otarre (C-H); Pedernalis (I).

Figure 14
Late Archaic/Early Woodland Projectile Points



	LENGTH				WIDTH		
	Axial	Blade	Tang	Shoulder	Prox. Haft	Dist. Haft	Maximum Thickness
Count	-	-	2	2	2	2	2
Mean	-	-	13.25	35.95	22.85	21.6	11.0
S	-	-	1.76	4.13	0.21	0.14	1.41

Otarre (Figure 14c-h), Keel (Keel 1976:194-196)

The Otarre Stemmed point is a medium sized, straight stemmed, biface. The blades are triangular with straight to slightly excurvate edges. All have sloping shoulders which can vary from asymmetrical to straight. Tangs are straight, parallel sided, and have straight square bases. The West Point Lake project recovered six specimens of this type; three at Site 9Tp867 and three at Site 9Tp294. The measurements of these points are given below:

	LENGTH				WIDTH		
	Axial	Blade	Tang	Shoulder	Prox. Haft	Dist. Haft	Maximum Thickness
Count	3	4	5	5	5	6	6
Mean	46.7	26.72	11.42	27.66	14.12	20.51	10.11
S	3.83	18.18	1.06	2.34	1.78	1.74	1.30

Pedernalis (Figure 14i), Kelly (Cambron and Hulse 1975:102)

This Late Archaic-Early Woodland projectile point type is a medium to large sized, bifurcated-stemmed biface. The blade edges are usually straight or excurvate but occasionally are incurvate or recurved by resharpening. The shoulders are horizontal or barbed. The haft element is characterized by a straight stem and a deeply notched basal edge. Grinding of the haft element is almost always absent. The present survey and testing project recovered one broken specimen of this type at Site 9Tp294. This specimen was manufactured from chert. Its measurements are given below:

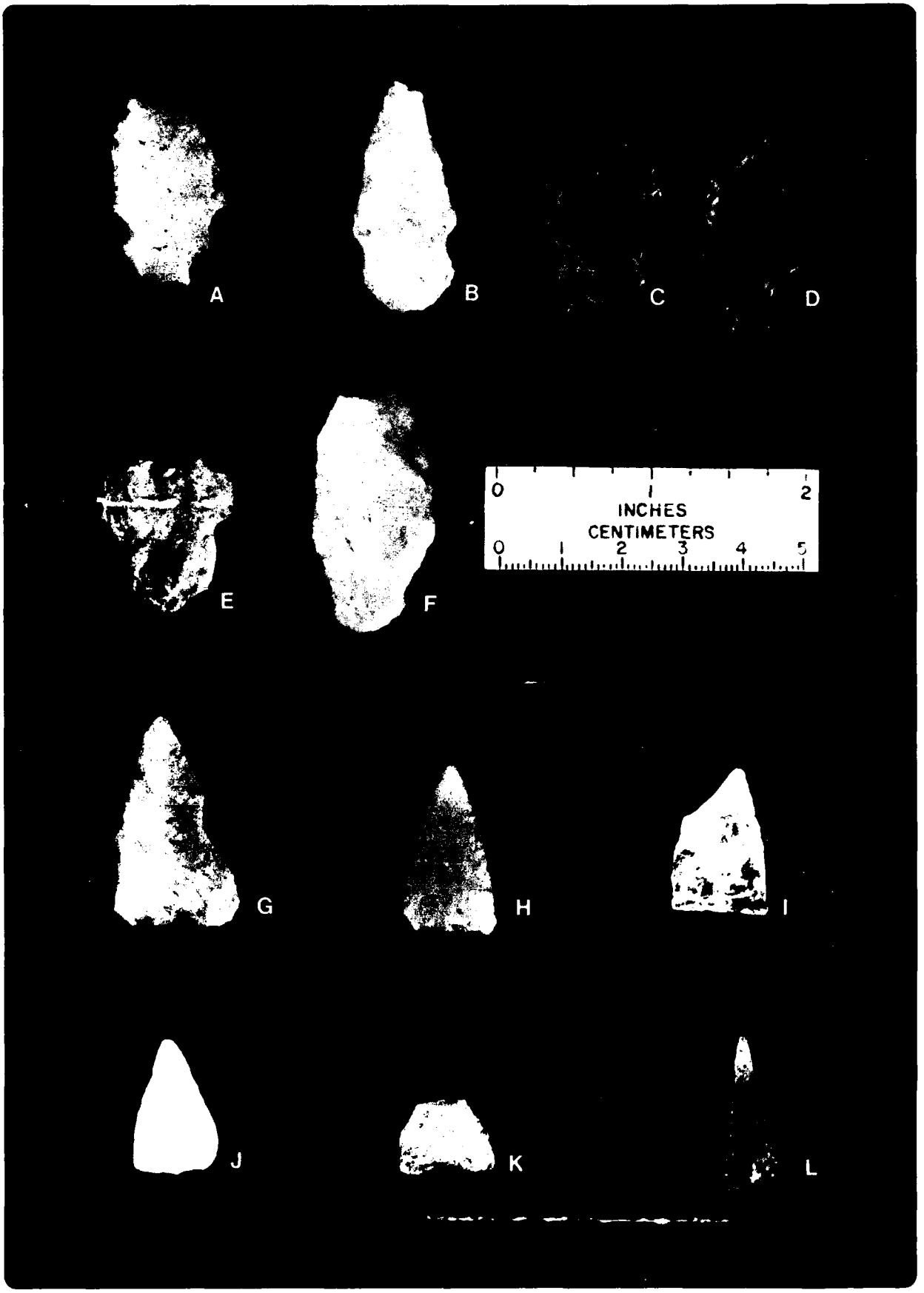
	LENGTH				WIDTH		
	Axial	Blade	Tang	Shoulder	Prox. Haft	Dist. Haft	Maximum Thickness
Count	-	-	-	-	1	-	1
Mean	-	-	-	-	25.6	-	5.0
S	-	-	-	-	-	-	-

Coosa-Notched (Figure 15a), DeJarnette (Cambron and Hulse 1975:30)

This Early Woodland projectile point type is a small to medium-sized shallow side-notched biface. The blade may be excurvate or straight with a finely

Sites 9He76 (A, B, D, H, J); 9He128 (C, F); 9Tp366 (E, L); 9Tp294 (G, K); 9Tp867 (I). Coosa Notched (A); Mountain Fork (B); Unidentified Woodland (C, D); New Market (E, F); Madison (G-K); Hamilton (L).

Figure 15
Woodland/Mississippian Projectile Points



serrated edge. The shoulders are inversely tapered. The haft element is characterized by an expanding stem and an excurvate but sometimes incurvate thinned basal edge. The West Point Lake project recovered one quartz specimen of this type at Site 9He76. Its measurements are:

	LENGTH				WIDTH		
	Axial	Blade	Tang	Shoulder	Prox. Haft	Dist. Haft	Maximum Thickness
Count	-	-	1	1	1	1	1
Mean	-	-	13.6	19.0	14.0	12.6	6.6
S	-	-	-	-	-	-	-

Mountain Fork (Figure 15b), Cambron (Cambron and Hulse 1975:93)

The Mountain Fork point is a small, narrow, thick, stemmed biface. The shoulders are narrow and tapered. The blade edge is often times straight but may be excurvate. The haft element is characterized by a straight or tapered stem with a straight or excurvate basal edge. The base may be thinned but often-times its unfinished. This point type is believed to be associated with the Late Woodland period. The West Point Lake project recovered one quartz specimen of this type at 9He76. The measurements are given below:

	LENGTH				WIDTH		
	Axial	Blade	Tang	Shoulder	Prox. Haft	Dist. Haft	Maximum Thickness
Count	1	1	1	1	1	1	1
Mean	40.0	25.0	15.0	17.5	15.8	14.0	8.0
S	-	-	-	-	-	-	-

Unidentified Woodland (Figure 15c, d)

The West Point Lake project recovered two small chert points that could not be identified according to existing projectile point typologies. The first point, discovered at 9He128, is corner-notched with an expanding stem and an excurvate base. The shoulders are horizontal and tapered. The blade is triangular in shape, with straight edges. The second point, discovered at 9He76, is a stemmed point with a long narrow stem. The shoulders are asymmetrical with one horizontal and one barbed. The blade edges are poorly formed with a segment of the edge retaining a thick mass of material that would not be removed in the thinning process. Given the overall size, shape, and technology used to produce these two points, it is believed that they are associated with the Woodland period. No summary statistics are provided for these two projectile points. However, their individual measurements are provided below:

Points	Maximum Length	Blade Length	Haft Length	Shoulder Width	Distal Width	Prox. Width	Max. Thickness
Figure 15c	34.4	22.1	12.3	34.4	14.7	15.0	6.5
Figure 15d	37.0	-	9.70	21.7	9.00	-	7.7

New Market (Figure 15e, f), Cambron (Cambron and Hulse 1975:96)

The New Market point is a medium sized, narrow, thick, stemmed biface. The shoulders are expanded, narrow and tapered. The blade edge is often times straight but may be excurvate. The haft element is characterized by a contracting, rounded stem with an excurvate basal edge. The West Point Lake project recovered two quartz specimens of this type; one at Site 9Tp366 and one at Site 9He128. Their measurements are summarized below:

	LENGTH				WIDTH		
	Axial	Blade	Tang	Shoulder	Prox. Haft	Dist. Haft	Maximum Thickness
Count	-	-	2	2	2	2	2
Mean	-	-	14.8	21.0	12.3	13.0	9.25
S	-	-	0.28	1.41	0.42	1.41	2.47

Madison Triangular (Figure 15g-k), Scully (Cambron and Hulse 1975:84)

This Mississippian period point is a small, thin, triangular biface with a straight or slightly incurvate base. Blade edges are usually straight and rarely excurvate. There are no distinguishable haft areas on these points. The West Point Lake project recovered five Madison Triangular specimens; two at Site 9He76, two at Site 9Tp294, and one at Site 9Tp867. Raw materials used in the manufacture of these points include quartz (N=3), quartz crystal (N=1), and chert (N=1). Their measurements are summarized below:

	LENGTH				WIDTH		
	Axial	Blade	Tang	Shoulder	Prox. Haft	Dist. Haft	Maximum Thickness
Count	3	-	-	-	5	-	5
Mean	28.0	-	-	-	16.22		5.98
S	6.15	-	-	-	2.33	-	1.77

Hamilton (Figure 15l), Lewis (Cambron and Hulse 1975:64)

This Mississippian point is a small sized, thin point with incurvate blade and base edges. The haft element portion of these points are unrecognizable. The West Point Lake project recovered one chert specimen at Site 9Tp366. Its measurements are summarized below:

	LENGTH				WIDTH		
	Axial	Blade	Tang	Shoulder	Prox. Haft	Dist. Haft	Maximum Thickness
Count	1	-	-	-	1	-	1
Mean	24.4	-	-	-	11.6	-	3.0
S	-	-	-	-	-	-	-

The metric attributes of the individual projectile point specimens are presented in Table 6. The measurements given in this table represent unbroken portions of the specimens. If a specimen was partially broken, then the measurements pertaining to the missing segment were omitted from the table.

Hafted Biface (Projectile Point) Fragments

The lithic analysis resulted in the identification of 68 broken projectile point fragments in the project collections. The breakage pattern observed for these artifacts is as follows: 32 specimens (47.1%) represented tips, 13 (19.1%) represented lateral sections, and 23 (33.8%) were basal fragments. The distribution of raw material categories illustrates the overwhelming use of quartz (N=56 or 82.4%) within this group of fragmentary artifacts. Eight chert and four quartz crystal specimens comprise the remaining raw material types; accounting for 11.8 and 5.9 percent of the collection, respectively.

It should be noted that the analysis allowed only one attribute code per variable. In the case of projectile points, this meant that each artifact was assigned a code designating its diagnostic attributes (ie. type of haft element) or its conditional state (ie. tip fragment). In the present analysis, diagnostic attributes took precedence over the conditional state so many of the broken but identifiable projectile points (discussed above) were not coded as fragmentary. As a result, the tip and lateral section categories should reflect the number of tool fragments collected during the project. However, the base fragment category (traditionally the most diagnostic element of a projectile point) is under represented in this analysis, due the inclusion of basal fragments in the diagnostic projectile point category.

Other Bifaces (non-hafted)

The West Point Lake project recovered 364 bifaces or biface fragments representing two different stages of production and use. Additionally, seven bifacial tools were not categorized by stage due to their fragmentary nature. Artifacts comprising the Stage I Bifaces (early stage preforms and/or bifacial cores) occur most frequently with 229 specimens (62.9%) in the project collection (Figure 16). Raw material usage within the Stage I category is as follows: 207 specimens (90.4%) were manufactured from quartz and 19 (8.3%) were quartz crystal. Chert, metavolcanics, and metamorphosed granite were the next most frequently occurring raw materials each contributing one specimen or 0.4

TABLE 6. Metric Attributes of West Point Lake Projectile Point Collection.

SITE#	BAG#	RAW** MAT.	MAX. LTH	MAX. WTH	MAX. THICK	SHLDER WTH	BLADE LTH	HAFT LTH	DIST HAFT WTH	PROX. HAFT WTH	PPT* CODE
9Tp294	1033	LQ	21.4	18.0	7.0	18.0	13.4	8.0	15.6	17.8	1
9Tp62	539	LH	46.0	21.0	8.0	21.0	34.5	11.5	18.0	21.0	2
9He134	703	LQ	33.0	20.8	8.6	20.8	22.0	11.0	12.4		3
9He76	824	LQ							19.3	21.4	4
9He76	799	LH	33.0	22.0	6.8	22.0	21.0	12.0	16.0	17.4	4
9Tp867	34	LQ		19.6	9.3	19.6		18.3	15.4	17.7	4
9Tp294	1028	LH		25.0	10.4						5
9Tp294	1021	LQ		35.6	15.7	35.6		12.0	21.0	13.0	6
9Tp62	649	LQ		30.0	11.9	30.0		16.7	23.6	8.7	6
9Tp294	1045	LQ		32.0	12.0	29.0	32.0		21.0		6
9Tp294	1044	LQ			12.6			19.3	23.9	8.8	6
9Tp294	1044	LQ		35.0	17.0	30.0		13.0	24.0	13.0	6
9Tp294	1044	LQ		28.4	10.0	28.4		16.4	18.2	13.6	6
9He76	862	LQ		22.7	10.7	22.7		12.0	18.0	14.5	7
9He76	826	LQ	34.6	21.0	10.0	21.0	22.6	12.0	16.6	12.0	7
9Tp294	1076	LQ	55.8	27.0	11.7	27.0	41.0	14.8	22.2	16.2	8
9He76	862	LQ	47.0	26.0	13.3	26.0	26.0	21.0	22.0	12.0	8
9He76	883	LQ		27.7	15.3	27.7		15.2	21.0	17.5	8
9Tp294	1055	LQ			10.0	32.9		14.5	21.7	23.0	9
9Tp366	466	LQ		39.0	12.0	39.0		12.0	21.5	22.7	9
9Tp294	1047	LH			8.3			12.9	18.8	16.6	10
9Tp294	1009	LQ		24.0	9.0	24.0	30.0		18.6		10
9Tp867	62	LQ	47.6	30.4	10.4	30.4	35.8	11.8	21.4	15.0	10

TABLE 6 continued. Metric Attributes of West Point Lake Projectile Point Collection

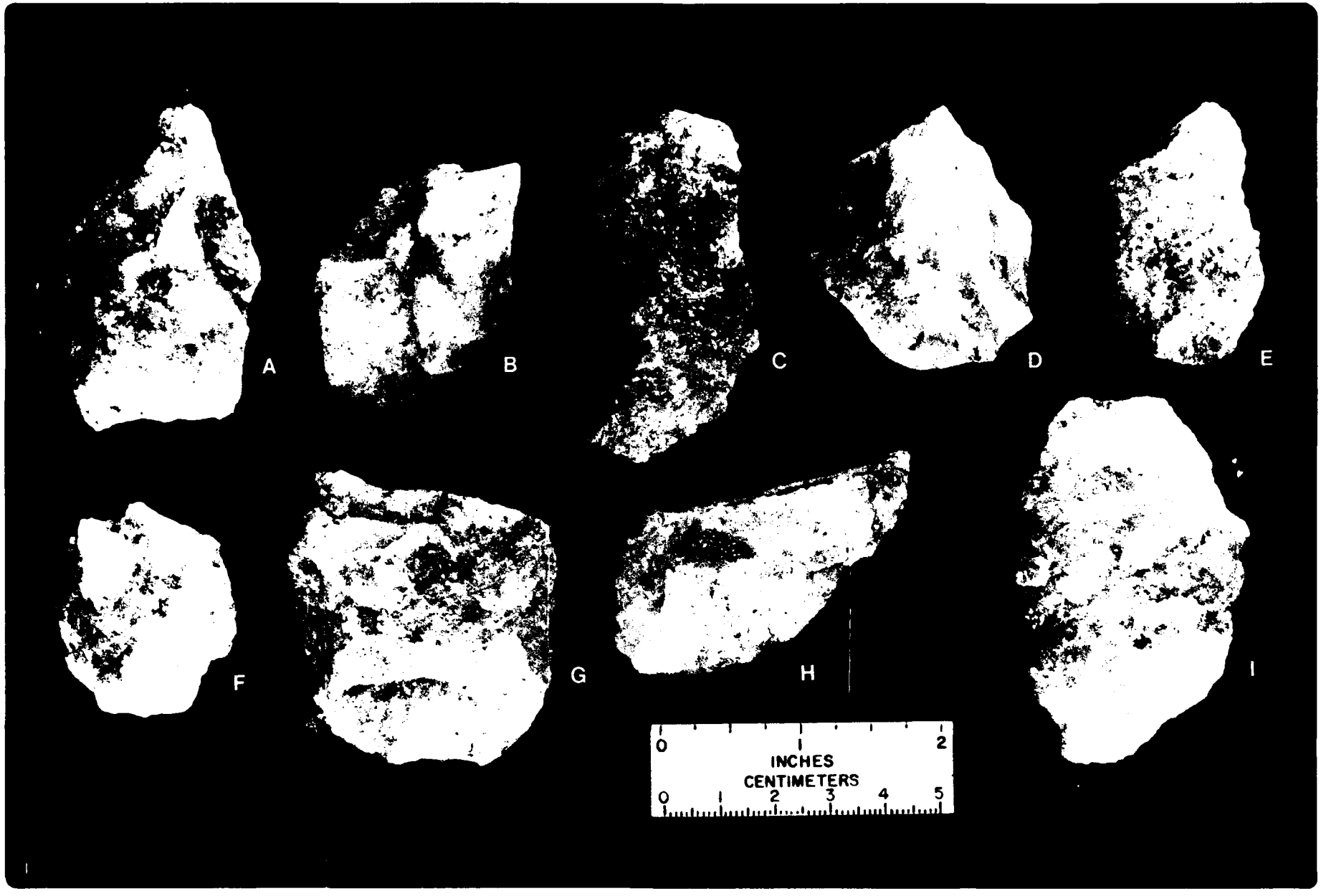
SITE#	BAG#	RAW** MAT	MAX. LTH	MAX. WTH	MAX. THICK	SHLDER WTH	BLADE LTH	HAFT LTH	DIST HAFT WTH	PROX. HAFT WTH	PPT* CODE
9Tp867	111	LQ	42.5	27.3	10.0	27.3	31.1	11.4	19.6	14.0	10
9Tp867	399	LQ	50.0	28.0	11.6	28.0	40.0	10.0	22.0	13.0	10
9Tp294	1021	LQ		28.6	11.4	28.6		11.0	22.7	12.0	10
9Tp294	1044	LH			5.0					25.6	11
9He76	843	LQ		19.0	6.6	19.0		13.6	12.6	14.0	12
9He76	795	LQ	40.0	17.5	8.0	17.5	25.0	15.0	14.0	15.8	13
9He128	200	LH	34.4	22.4	6.5	34.4	22.1	12.3	14.7	15.0	14
9He76	830	LH	37.0	21.7	7.7	21.7		9.7	9.0		14
9Tp366	295	LQ		22.0	7.5	22.0		14.6	14.0	12.6	15
9He128	150	LQ		20.0	11.0	20.0		15.0	12.0	12.0	15
9Tp294	1066	LQ	34.3	20.0	8.1					20.0	16
9He76	828	LH	27.7	15.4	5.2					15.4	16
9Tp867	62	LC		16.0	5.0					16.0	16
9He76	797	LQ	22.0	13.6	7.6					13.6	16
9Tp294	1048	LQ		16.1	4.0					16.1	16
9Tp366	298	LH	24.4	11.6	3.0					11.6	17

* PPT CODE: 1-Palmer; 2-Pine Tree; 3-Damron; 4-LeCroy; 5-Morrow Mt. Rounded Base; 6-Morrow Mt.; 7-Halifax; 8-Guilfords; 9-McIntire; 10-Otarre; 11-Pendernalis; 12-Coosa-Notched; 13-Mt. Folk; 14-Unidentified Woodland; 15-New Market; 16-Madison; 17-Hamilton

**RAW MATERIAL CODE: LQ-Quartz; LC-quartz crystal; LH-Chert

Sites 9Tp366 (A, D, E, G, H); 9Tp867 (B, I); 9He76 (C, F). Stage I Bifaces (A-I).

Figure 16
Stage I Bifaces



percent of the assemblage included in the Stage I category. Stage II Bifaces (late stage preforms or bifacial cutting tools) included a total of 135 specimens or 37.1 percent of the non-hafted biface collection (Figure 17a-j). Analysis of raw material usage within this category resulted in the identification of 127 (94.1%) quartz specimens, five (3.7%) chert specimens, and three (2.2%) quartz crystal specimens. The significant number of quartz tools within both the Stage I and Stage II Biface categories illustrates the preference for locally occurring raw materials in the manufacturing process of stone tools.

Flake Blanks

The West Point Lake project recovered 145 flake blanks representing three different raw material types. The most abundant raw material is quartz with 141 specimens or 97.2 percent of the collection. The only other materials categorized within this group are quartz crystal (N=3 or 2%) and chert (N=1 or 0.7%).

Unifaces and Utilized Flakes

A total of 10 unifaces and nine utilized flakes representing three different raw material types were recovered during the project. Raw material types present in both tool categories include quartz, quartz crystal, and chert. The raw material distribution within the uniface category included six quartz specimens, three chert, and one quartz crystal. The raw material profile of the utilized flakes is very similar to the uniface category, which included five quartz specimens, two chert, and two quartz crystals. The collections of these two categories may not accurately reflect the quantities of tools occuring on sites in the project area. Archeological assemblages, particularly those dominated by quartz, are extremely difficult to analyze for retouch flaking and wear along flake edge margins. As a result, great care had to be taken during the analysis in noting these characteristics, and only those artifacts that could be identified with a great deal of confidence were included within these two categories.

Other Tools

The project recovered a number of other tool forms that are worth noting, even though they represent only one or two specimens per category. These tools include two hammerstones, two drill fragments (Figure 17k-m), one net sinker fragment (Figure 17o), one mano or grinding stone, one steatite bowl fragment (Figure 17n), three spokeshaves, and one denticulate.

Sites 9Tp62 (A, M); 9He76 (B, D, I, K); 9Tp366 (C, G, H, J, L, N, O); 9Tp867 (, F). Stage I Bifaces (A-J); Drill Fragments (K-M); Steatite Bowl Fragment (N); Net Sinker Fragment (O).

Figure 17
Stage II Bifaces and Miscellaneous Tools

Cores

A total of 92 cores representing six core types were recovered during the West Point Lake project. These core types include unidirectional (N=20; 21.7%), bi-directional (N=29; 31.5%), multi-directional (N=31; 33.7%), bi-polar (N=5; 5.5%), pyramidal (N=6; 6.5%), and undetermined (N=1; 1.1%). The raw material composition of the core collection included 82 (88.2%) quartz, 10 (10.8%) quartz crystal, and one (1%) chert core.

Debitage

A total of 9,128 pieces of debitage (excluding the 145 flake blanks) were recovered during the field work activities. Of this total, 8,215 (90%) pieces were quartz, 500 (5.5%) pieces were chert, and 382 (4.2%) pieces were quartz crystal. These three raw material types comprise over 99 percent of the entire collection. The remainder of the debitage consisted of 29 (0.3%) pieces of metavolcanics and one piece of steatite and granite. A break-down of the flake types by raw material types is presented in Table 7.

TABLE 7. Flake Types by Raw Material Types in the West Point Lake Collections

Raw Material	Flake Types					
	Primary	Secondary	Tertiary	Unidentified	Shatter	TOTALS
Quartz Crystal		26	277	47	32	382
Chert	4	71	415	6	4	500
Quartz	46	1752	4960	901	556	8214
Metavolcanics	1	2	17	8	1	29
Granite					1	1
Steatite			1			1
TOTALS	51	1851	5670	962	594	9128

The debitage profile collected from the various sites within the project area reflect the terminal stages of tool production. However, it is interesting to note that both the quartz and chert materials exhibit a modest percentage of early stage production. This was not unexpected for the locally occuring quartz but it is some what of a surprise for the chert. Most of the cherts exhibited macroscopic characteristics (color and luster) similar to those found in the Ridge and Valley Province. If this is indeed the source area for these materials, then raw material procurement could have been embedded within larger social and economic exchange networks during late prehistoric times. During the Archaic Period however, raw material procurement would most likely have been embedded within the settlement-subsistence strategy, which covered large areas.

PROJECT CERAMICS

Ceramic attributes and the co-occurrence of ceramic attributes are discussed in this section. Since these results present data from all ceramic components of the project, temporal/cultural distinctions within attribute distributions and co-occurrences are not offered here. These topics are treated in the following chapters, however. This discussion is grouped by the ceramic attributes studied during the West Point lake laboratory analysis.

Surface Treatment

Recent research in northern Georgia and Alabama has used the attributes of surface treatment (ie. roughened, burnishing, etc.), temper, and paste to differentiate between various types and varieties of plain pottery. In Georgia, Hally (1979:149-158) identified four types of Lamar plain ceramics based on various combinations of these variables. Lamar Plain var. Murray is a smooth or polished plain pottery with a compact, and medium to fine textured paste. The temper of these ceramics consist of fine to medium sized grit particles. Lamar Coarse Plain var. Ranger exhibit the same characteristics as the Murray pottery, except the surface treatment on these ceramics are cracked and bumpy and show no sign of polishing or smoothing. The same sort of distinctions holds true for the Lamar Plain var. Vann and the Lamar Coarse Plain var. Cohutta ceramics. Lamar Plain var. Vann is a smooth or polished plain pottery with a medium to coarse textured paste and coarse grit temper. The Lamar Coarse Plain var Cohutta ceramics, on the other hand, differs from the Vann pottery by its cracked, and bumpy exterior surface. In Alabama, Knight (1985) has used the same variables to distinguish between several varieties of Historic Creek plain pottery. Similar attempts to identify varieties of plain ceramics were presented by the current project, and are discussed in Chapter V, below. Table 8 presents a composite of surface treatment attribute frequencies by specific ceramic forms recovered during the West Point Lake project.

Rim Form and Rim Lip Form

A total of 808 sherds (5.9%) of the ceramic collection contributed information pertinent to these variables. The largest number of rim types recorded within this assemblage were straight rims (N=401; 49.6%) followed by outcurving rims (N=361; 44.7%), outsloping rims (N=33; 4.08%), incurving rims (N=9; 1.11%), and unidentified rims (N=4; 0.37%). Analysis of lip form types yielded 321 (39.7%) rounded, 247 (30.5%) tapered, 207 (25.6%) squared, and 30 (3.71%) thickened lip forms. Although there are a large number of possible combinations for these attributes, the ones found to co-occur most frequently were outcurving rims with rounded (N=168; 21.0%) and tapered lips (N=136; 17.1%) and straight rims with square (N=151; 19.0%) and rounded lips (N=143; 18%). Table 9 lists the co-occurrences of rim and lip forms recovered by the present project.

TABLE 8. Surface Treatments Of The West Point Lake Ceramic Collection

	CERAMIC FORM							
SURFACE TREATMENT	Rim	Body	Base	Handles	Disk	Shoulder	Total	%
Applique*	80	19	0	0	0	0	99	0.7
Filletted	0	3	0	0	0	0	3	0.0
Incised	142	623	0	3	0	4	772	5.6
Comb Marked	0	1	0	0	0	0	1	0.0
Finger Pinched	36	0	0	1	0	0	37	0.3
Cord Marked	1	4	0	0	0	0	5	0.0
Punctated/Incised	8	36	0	0	0	0	44	0.3
Plain	19	7474	9	11	1	2	7516	54.5
Brushed	2	275	0	0	0	2	279	2.0
Complicated Stamped	12	74	0	1	0	8	95	0.7
Checked Stamped	5	97	1	0	0	1	104	0.8
Smoothed	423	4116	0	3	1	13	4556	33.0
Roughened	0	3	0	0	0	0	3	0.0
Simple Stamped	1	11	0	0	0	0	12	0.0
Unmodified	23	9	0	0	0	2	34	0.2
Eroded	50	141	0	0	1	4	196	1.4
Unidentified	4	5	0	0	0	0	28	0.2

*For the purposes of this table, no attempt is made to break-down the various forms of applique rims.

TABLE 9. Co-occurrence of Rim and Lip Forms.

	RIM FORM				
LIP FORM	Outcurving	Incurving	Straight	Outsloping	Total
Rounded	168	3	143	7	321
Square	45	1	151	10	207
Tapered	136	4	91	15	246
Thickened	12	1	16	1	30
Unidentified					4
Totals	361	9	401	33	808

The most frequently occurring rim types in the ceramic collection were smoothed plain rims (N=414; 64.4%) followed by bold incised exterior surfaces (N=96; 14.9%), finger pinched applique rim strips (N=56; 8.7%), finger pinched folded rims (N=28; 4.3%), medium incised exterior surfaces (N=26; 4%), and unmodified plain rims (N=23; 3.7%). It is interesting to note that both bold and medium incised rims occur more frequently on ceramics that have neither applique rim strips nor folded rims. Conversely, applique and folded rims exhibit the highest incidence of finger pinching with relatively few incidences of incising. The frequent use of both applique strips and bold incising on vessel forms is

thought to be a late development in the prehistory of north Georgia (Hally 1979). Table 10 illustrates the relationship between the various rim forms and surface finishes, and the overwhelming co-occurrence of finger pinched and incised decorations on outcurving and straight jar vessel forms.

TABLE 10. Co-occurrence of Rim Forms and Surface Finishes.

SURFACE TREATMENT	RIM FORM					
	Outcurving	Incurving	Straight	Outsloping	Unid	Total
Bold Incised*	47	1	68	3	1	120
Medium Incised**	10	2	17	1		30
Fine Incised***	0	1	1	3		5
Finger-Pinched	68	1	20	0		89
Smoothed	169	4	235	21		429
Complicated Stamped	3	0	7	1	1	12
Brushed	1	0	1	0		2
Checked Stamped	4	0	0	1		5
Punctated/Incised	6	0	3	0		9
Cord Marked	0	0	0	1		1
Simple Stamped	0	0	1	0		1
Plain	16	0	8	0		24
Eroded	17	0	27	1	1	46
Unmodified	10	0	12	1		23
Unidentified	10	0	1	0	1	12
Totals	361	9	401	33	4	808

* Incised line >2 mm in width; ** Incised line >1<2 mm in width; *** Incised line <1 mm in width

V. FINDINGS AND SITE DESCRIPTIONS

INTRODUCTION

This chapter will discuss the findings of Phase I survey of the six survey tracts and the six sites that were intensively tested for National Register of Historic Places significance. In the first section, archeological sites discovered during the survey are described. The second section is devoted to the description of the six tested sites. Both sections will focus on a detailed description of the field work activities and a discussion of the artifactual materials recovered at each site location.

Following each site description, an evaluation is presented on each site's eligibility or non-eligibility for inclusion in the National Register of Historic Places. In the case of the survey sites, potential eligibility will be discussed, given that the level of investigation performed at these locations was not sufficient for adequate National Register documentation. Each site is listed by the official state site number followed by the temporary New South (NS) field designation and the survey tract where it was discovered. Figure 3 shows the location of the six survey tracts within the West Point Lake project area.

PHASE I SURVEY

9He129 (NS-1; Survey Tract #3)

This location was designated an archeological occurrence due to the small number of artifacts recovered by the field investigation. The occurrence is represented by two tertiary flakes discovered in a single shovel test pit and several pieces of fire cracked rock found lying on the surface. Located on a relatively level bench of an otherwise steeply sloping ridge, the area is heavily overgrown with vegetation. This occurrence is less than 30 meters from the Chattahoochee River, approximately 600 meters west of its confluence with Centralhatchee Creek, and is situated at an elevation of approximately 195.1 meters NGVD. Shovel test pits excavated in the four cardinal directions from the initial find yielded no additional artifacts. The survey strategy employed a ten meter interval between each of the shovel test units. The soils in this area were badly eroded with numerous rills and gullies present. Shovel test pit profiles exhibited a shallow A horizon consisting of recent organic matter and a reddish brown sandy clay loam. The B horizon or red clay subsoil, occurred near the surface of all the test units.

9He130 (NS-2; Survey Tract #2)

This location was designated an archeological occurrence due to the small number of artifacts recovered by the field investigation. A total of three quartz and two chert tertiary flakes, one quartz secondary flake, one quartz flake blank, and one smoothed plain body sherd were recovered at this location. The occurrence was initially discovered by a shallow auger test located along a ridge slope overlooking the east bank of the Chattahoochee River. The occurrence is located at the end of a two track within 20 meters of the Chattahoochee River, at an elevation of 195.1 meters NGVD. The location had been recently clear cut affording good ground surface visibility in the disturbed areas. Shovel test pits excavated at 5 and 10 meter intervals in the cardinal directions from the auger location yielded artifactual material. Three 10 meter interval test pits north and one 5 meter interval pit west of the auger hole were positive. These pits effectively define the boundary of the occurrence, which appears to be a lithic scatter. No additional artifacts were recovered from an intensive pedestrian search of the exposed ground surface. The shovel test pits revealed a shallow, heavily disturbed brown loam A horizon which capped a dark yellowish brown silty clay loam B horizon. All artifacts were recovered from the disturbed A horizon.

9He131 (NS-3; Survey Tract #5)

This location was designated an archeological occurrence due to the small number of artifacts recovered by the field investigation. A total of two plain body sherds were recovered at this location. The initial find occurred while conducting systematic auger testing along the west bank of the Chattahoochee River. The second sherd was found in a shovel test pit located 20 meters south of the initial find spot. Another ten test pits placed both parallel and perpendicular to the terrace edge yielded no additional artifactual material. The occurrence is located some 70 meters west of the Chattahoochee at an elevation of 195.1 meters NGVD. This area of the river terrace had been recently clear cut and disturbances caused by the heavy equipment were evident. Inspection of these areas yielded no additional cultural material. The shovel test pits revealed a shallow, heavily disturbed brown loam A horizon which capped a dark yellowish brown silty clay loam B horizon. The size of the recovered sherds suggest that they originated from the disturbed upper A horizon.

9He132 (NS-4; Survey Tract #5)

This location was designated an archeological occurrence due to the small number of artifacts recovered by the field investigation. A total of three chert and two quartz tertiary flakes, one quartz secondary flake, one quartz flake blank, and two plain body sherds were recovered at this location. The location of the occurrence is on a recently clear cut ridge top overlooking the west bank of the Chattahoochee River, some 90 meters distant, at an elevation of 201.2 meters NGVD. Although ground surface visibility was good, no artifactual material was

seen on the ground surface. Shovel testing proceeded both across (orientated in a north-south direction) and along (orientated in an east-west direction) the ridge top at ten meter intervals. The shovel test transect running across the ridge resulted in the recovery of several artifacts spaced 50 meters apart. On one of the east-west orientated shovel test transects, artifacts were recovered up to the edge of the Corps of Engineers property line, approximately 40 meters west of the end of the ridge. It is not known how far the site extends beyond the Corps property line to the west. A site size estimate based on the shovel test findings is 50 meters (north-south) by 40 meters (east-west). Much of the top soil had been eroded away from the ridge nose area, exposing the red clay subsoil on the surface. To the west, further back on the ridge line, the shovel test encountered a shallow B soil horizon that was a reddish brown sandy clay loam. This zone was disturbed however, with substratum red clay peds mixed into its matrix.

9He133 (NS-5; Survey Tract #5)

This location was designated an archeological occurrence on the basis of the recovery of one plain body sherd in a shovel test unit. This archeological occurrence is located on the floodplain along the north side of Hillabahatchee Creek, some 70 meters distant from Hillabahatchee Creek to the west and roughly the equivalent distance from the Chattahoochee River to the east. The occurrence is located at an elevation of 195.1 meters NGVD. Shovel test units placed in the four cardinal directions from this find spot yielded no additional information.

9He134 (NS-6; Survey Tract #5)

This site is a prehistoric lithic scatter located along the toeslope of a high ridge overlooking the confluence of Hillabahatchee Creek and the Chattahoochee River. Presently the site is situated at the edge of the flood pool of West Point Lake, at an elevation of approximately 195.1 meters NGVD. The artifacts, which were recovered from auger and shovel test units, included an Early Archaic Damron projectile point (Figure 13b), a Stage II biface, two quartz primary flakes, and nine tertiary flakes. Raw materials comprising the tertiary flake category were quartz (N=4), quartz crystal (N=1), chert (N=2), and metavolcanics (N=1). A total of 16 shovel test pits, five of which yielded artifacts, were excavated along the toeslope. Inspection of the soil profiles occurring in the test units indicates much soil disturbance within the site's boundaries. The units away from the toeslope exhibited little evidence of a recognizable B horizon (a dark yellowish brown silty clay loam) due to mixing of the upper solum. This mixing occurs along the toeslope area as well, with only one unit out of six exhibiting evidence of intact subsoil. Within this B horizon, five flakes were recovered, suggestive of an intact cultural deposit. However, the extent of this deposit is extremely limited in its horizontal distribution as evidenced by the test pit profiles. The site limits are estimated to be 50 meters (north-south) by 40 meters (east-west).

9He135 (NS-7; Survey Tract #6)

This site is a prehistoric lithic scatter located along the crest and nose of a northwest by southeast trending ridge. The ridge is long and narrow with steep slopes, and overlooks the east bank of the Chattahoochee River, some 70 meters distant from this site. The elevation of this ridge and site is 207.3 meters NGVD. The investigation focused on the northwestern portion of the ridge line (approximately 100 meters long) that is within the survey tract boundary. Although the distribution of artifacts included all of the inspected area (100 north-south by 10 meters east-west), no attempt was made to investigate the portion of the ridge that is privately owned.

Shovel test units dug at a 10 meter interval along the crest and nose of the ridge yielded a Stage I quartz biface, six quartz crystal tertiary flakes, four quartz tertiary flakes, three unidentifiable quartz flakes, and several pieces of quartz shatter. This collection of artifacts suggests an occupation dating to Archaic period for the site.

Inspection of the shovel test unit profiles indicates that the A horizon had been completely removed by erosion. Instead of the dark grayish brown sandy loam A horizon, red clay (indicative of the lower B horizon) appeared immediately below the root mat in all of the units.

9He136 (NS-8; Survey Tract #6)

Tnis location was designated an archeological occurrence due to the recovery of a single quartz crystal tertiary flake in a shovel test unit. Shovel test units excavated in the cardinal directions away from the find location yielded no additional information. The occurrence is located some 80 meters east of the Chattahoochee River at an elevation of 195.1 meters NGVD.

9He137 (NS-9; Survey Tract #6)

9He137 is located in a wooded area between the toeslope of a steep ridge and a back-swamp on the floodplain of the Chattahoochee River. The site is some 50 meters east of the Chattahoochee River, and 15 meters from the back-swamp, at an elevation of 195.1 meters NGVD. The artifacts recovered from this location included three small plain body sherds and a smoothed plain quartz and grit tempered rim sherd with a rounded lip. The lip finish on this rim sherd exhibited small, shallow incisions that were equally spaced around the top of the lip. The attributes found on this sherd are similar to those found on Middle Woodland period ceramics in other parts of Georgia. No other artifacts were found at this location although eight shovel test units were excavated in the vicinity. The soil profiles along the base of the toeslope documented the intense erosional processes occurring in this area as a result of slope wash from the nearby ridge.

9He138 (NS-10; Survey Tract #1)

This site represents one of the larger and more productive sites discovered during the survey. The site was first discovered while inspecting the west bank of Zachry Creek above its confluence with the Chattahoochee River. Along the western bank of Zachry Creek, erosion had exposed an usually dense concentration of lithic artifacts over an area approximately 20 meters wide by 100 meters long. A grab sample of the artifacts occurring along the shoreline included bifaces, cores, flake blanks, and debitage (Table 11). A shovel test transect running perpendicular to the shoreline, beginning on top of the erosional cut and traversing the broad level terrace, resulted in the recovery of plain smoothed pottery sherds in a number of the shovel test units. The information obtained from both the inspection of the shoreline and the shovel testing procedure suggest that the size of this site is approximately 100 meters long by 50 meters wide. The site is located at an elevation of 189 meters NGVD.

The shovel test pits exhibited deep and well differentiated soil profiles with similar physical characteristics. The upper-most soil horizon consisted of a dark yellow brown clayey loam which extended to a depth of 14 centimeters below the surface. Beneath the top horizon was a zone (14-27 centimeters below surface) consisting of mottled dark brown to yellowish brown clayey loam. The clay content in this zone was less than the previous zone. The lower-most horizon (below 27 centimeters) consisted of a dark brown clay. Plain body sherds and lithic debitage were found in both the top and middle zones in several of the shovel test units, however the majority of the materials came from the mottled dark brown to yellowish brown clayey loam horizon.

TABLE 11. Frequencies of Lithic Artifacts Found at 9He138

	Quartz	Chert
Debitage		
Primary	1	
Secondary	1	
Tertiary	35	
Flake Blank	14	4
Unidentified	6	
Cores		
Uni-directional	1	
Bi-directional	1	
Other Bifaces		
Stage I	11	
Stage II	5	
Hafted Bifaces		
Tip Section	2	
Totals	77	4

9He139 (NS-11; Survey Tract # 1)

This location was designated an archeological occurrence due to the small number of artifacts recovered by the field investigation. A total of three plain body sherds and one finger pinched rim sherd (Lamar Mississippian) were recovered at this location. The initial find occurred while conducting systematic auger testing along the east bank of the Chattahoochee River, some 120 meters distant. The elevation of the occurrence is 194 meters NGVD. Discovery of the remaining sherds occurred while conducting the systematic shovel test procedure: two sherds at grid location N100/E100 (next to the auger test) and two sherds at grid location N100/E120. Additional shovel tests all proved negative. The area surrounding the archeological occurrence is relatively high and has not been severely affected by seasonal fluctuations in the lake level. This is demonstrated by the growth of mixed hardwoods and pines that could not survive if this portion of the terrace was inundated for extended periods of time. Shovel test pit profiles revealed a shallow, very dark gray brown humus layer about 2 centimeters thick. The next layer was a dark yellow brown clay loam that extended to a depth of 25 centimeters below surface. At about this level the soil changed to a dark yellow brown clayey sand that graded into a sandy clay at a depth of 50 centimeters below surface. The four artifacts recovered from this location all came from the top 25 centimeters of this profile.

9He140 (NS-12; Survey Tract #1)

Site 9He140 is located 300 meters north of Site 9He139 along the same river terrace at approximately the same elevation (194 meters NGVD) at a distance of 150 meters to the Chattahoochee River. The site is presently situated in a wooded area comprised of mixed hardwoods and pine. Systematic shovel tests placed along the terrace yielded a dense concentration of ceramics covering an area approximately 50 by 30 meters in size. Table 12 lists the positive shovel test units by arbitrary grid numbers and the artifacts recovered at each location. The arbitrary grid system was constructed by assigning the grid number N100/E100 to the initial find spot. This table shows that the shovel test transect labelled N100 consistently yielded artifacts between the E50 and E100 locations and that the artifact density significantly increased between the units
located at E80 and E100.

Interpreting these data is difficult given the problems of sample size and the non-diagnostic character of the sherds in question. Clearly the size of the units employed during the shovel test operation has a direct bearing on the quantity of materials recovered, yet it appears that several of these units yielded an inordinate number of ceramics. In viewing the raw numbers alone, these figures are not too impressive, however by using some basic mathematics for calculating the volume of earth removed in a shovel test pit compared to the volume of dirt contained in a more familiar 1 by 1 meter excavation unit, the numbers take on more dramatic proportions. Assuming that the shovel test pit data accurately reflects the density of material surrounding the units, the

number of ceramics that could occur within a 1 x 1 x 0.3 meter volume of dirt are shown in the last column of Table 12. These numbers provide a much more dramatic picture of the artifact density occurring at Site 9He140. Also, the distributional characteristic of the data takes on a slightly different quality, with high density areas interspersed at regular intervals with low density areas. Once again this pattern may be the product of sampling, but the idea that these spatial regularities may reflect some cultural formation process cannot be dismissed at this time.

TABLE 12. Shovel Test Units Containing Artifacts at 9He140

Shovel Test Units	Quantity	Ceramic Type	Conversion #
N90/E100	1	Smoothed Plain Body Sherd	9.87
N100/E50	1	Smoothed Plain Body Sherd	9.87
N100/E60	3	Smoothed Plain Body Sherds	39.48
	1	Medium Incised Body Sherd	
N100/E70	1	Smoothed Plain Body Sherd	9.87
N100/E80	8	Smoothed Plain Body Sherds	78.96
N100/E90	2	Smoothed Plain Body Sherds	19.74
N100/E100	6	Smoothed Plain Body Sherds	69.09
	1	Rim Sherd with Rounded Lip	
N110/E100	5	Smoothed Plain Body Sherds	49.35

Analysis of 29 pottery sherds recovered at the site suggests a Mississippian occupation although the quantity of the sherds and their physical size makes positive identification difficult. Smoothed plain body sherds predominate the collection with only one specimen exhibiting any mode of exterior surface decoration. Clearly the occupants of Site 9He140 utilized ceramic containers that were not elaborately decorated, which may relate to the function or everyday activities that occurred at this location.

Cultural material was recovered to a depth of 40 centimeters in several of the test units, indicating the presence of buried deposits. A typical profile exposed in the shovel test pits revealed a surface layer consisted of a thin dark yellowish brown clayey loam approximately four centimeters thick. This surface layer capped a 10 centimeter thick layer of brown clayey loam. Below this, to a depth of approximately 70 centimeters (below surface), was a dark yellow brown clayey loam that conforms to the B horizon description given the Riverview loam on flood plain settings (Brooks 1976). The thickness and homogeneity in color and texture (no mottling or discoloration) of this horizon indicate an intact soil layer where preserved cultural features may exist. Although no features were discovered during the shovel test operation, the elevation of the site and the presence of vegetation has protected it from severe disturbances caused by erosion.

Site 9He141 (NS-13; Survey Tract #1)

Site 9He141 is located approximately 400 meters north of Site 9He140 along the same river terrace and and at a similar elevation (194 meters NGVD). The site is approximately 200 meters distant from the Chattahoochee River. The site was discovered in a recently plowed field and covers an area 100 by 50 meters in size. This size estimate includes an unplowed portion of the terrace in which shovel tests yielded materials as far as 40 meters east of the plowed field. The shovel test profiles indicated the presence of brown silt loam and silty clays to a depth of 50 centimeters within the site boundary. Below this, a yellowish red clay was observed.

A general surface collection of the very dense ceramic scatter within the plowed field yielded a relatively large collection of plain and decorated Late Mississippian sherds (Table 13). All of the sherds in the collection were recorded as a fine to medium paste with the dominant (N=103; 83 percent) form of surface treatment being a smoothed exterior surface. Bold incision (incised lines greater than 2 mm in width) was the next most frequent form of surface treatment with a total of 16 specimens (7.8 percent) represented in the collection. This site appears to be of Lamar Mississippian association.

TABLE 13. Frequencies of Sherd Types Recovered at 9He141

Quantity	Sherd Form	Temper*	Rim Form	Lip Form
28	Smoothed Plain Body	Fine-Medium		
73	Smoothed Plain Body	Medium-Coarse		
1	Smoothed Plain Body	Shell		
14	Bold Incised Body Sherd	Fine-Medium		
1	Medium Incised Body Sherd	Fine-Medium		
1	Smooth Plain Rim	Fine-Medium	Outcurving	Rounded
2	Finger Pinched Appliqued Rim	Fine-Medium	Outcurving	Rounded
1	Smoothed Plain Appliqued Rim	Fine-Medium	Outcurving	Tapered
1	Bold Incised Rim	Fine-Medium	Straight	Square
1	Bold Incised Rim	Fine-Medium	Unidentified	Rounded
1	Rim (eroded)	Fine-Medium	Straight	Rounded

*Fine-Medium and Medium-Coarse refers to grit and quartz tempered ceramics.

9He142 (NS-14; Survey Tract #3)

Site 9He142 measures 40 by 20 meters in size and is located along a low-lying ridge and toeslope near the confluence of Centralhatchee Creek and the Chattahoochee River. The site is situated some 300 meters distant from the Chattahoochee, at an elevation of 195.1 meters NGVD. The area is presently heavily wooded with a forest overstory consisting of mixed hardwoods and pines. Shovel test units placed along the ridge yielded Late Mississippian ceramic

artifacts, including 10 smoothed plain body sherds, one complicated stamped body sherd, and one folded finger-pinched rim sherd. Eight of the 12 sherds recovered were classified as medium to coarse tempered sherds. Erosion of the ridge had removed much of the topsoil, with red clay occurring within the top 10 centimeters in most shovel test pits.

PHASE II TESTING

Site 9Tp366

Site 9Tp366 is located on a sandy levee in the Chattahoochee River floodplain. The levee is at an elevation of approximately 192 meters NGVD and is completely inundated by the lake during most of the year. Previous investigation by the University of Georgia indicated that the principal locus (A) of the site extends 175 meters eastward from the mouth of a permanently flowing tributary. A second locus (B), measuring 215 meters by 3 meters, was identified 50 meters south of the first locus. This area is slightly higher than the first locus and is exposed more often during low lake levels. The area contained within both loci is estimated to be 0.42 hectares (1.04 acres) (Figure 18).

Surface collections made during the University of Georgia's investigation included complicated stamped sherds (one identified as Swift Creek), plain grit tempered and temperless plain sherds, lithic tools, cores, and debitage (Rudolph 1979). Also, in 1987, during a visit to the site by the Corps of Engineers and State Historic Preservation Office, numerous concentrations of artifacts suggestive of eroded features were found along the shoreline in Locus A.

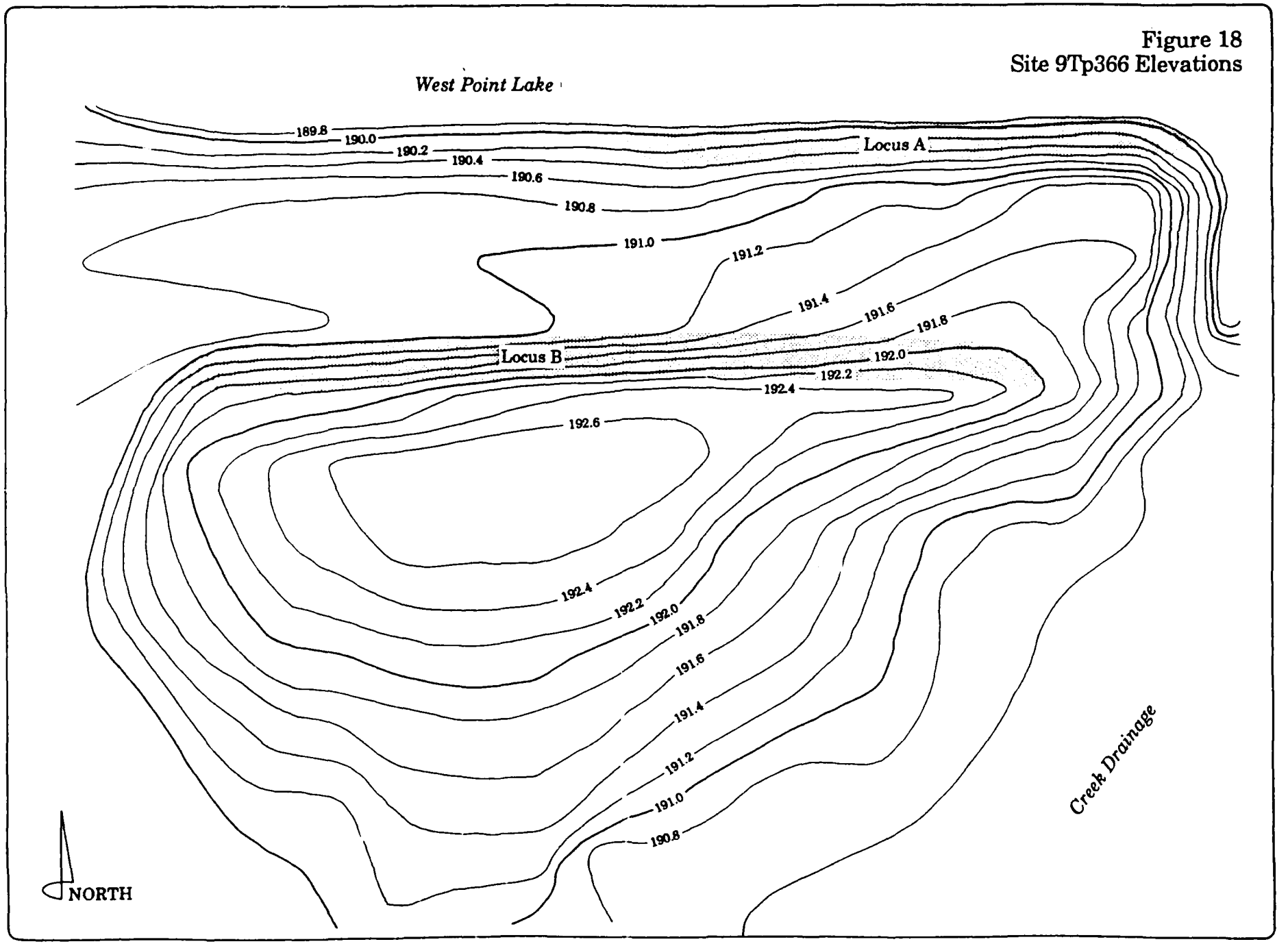
The 1989 Investigation

Archeological testing of Site 9Tp366 began on March 6 and concluded on March 20, 1989. As per the scope-of work, the principal means of testing this site included a controlled surface collection of the shoreline and systematic shovel testing of the area above the shoreline where poor ground surface visibility occurred. Based on the results of the surface collection and shovel testing procedures, two 2 by 2 meter excavation units were excavated in areas considered most favorable for containing intact buried deposits and features. Additional work at Site 9Tp366 focused on an investigation of the eroded features along the shoreline and the preparation of a detailed topographic map of the site.

Surface Collections at Site 9Tp366

The research goals of the controlled surface collection at Site 9Tp366 focused on two primary objectives: documentation of the artifact assemblage, and the collection of information on the internal characteristics of the site. The first objective involved the the rapid recovery of a large sample of material, useful for

Figure 18
Site 9Tp366 Elevations



determining the extent of the artifact scatter and interpreting both the occupational intensity and history of the site. The second objective involved the collection of data capable of isolating different occupational components. Large multicomponent sites frequently occur in floodplain settings, but little effort has been made on researching this phenomenon in the project area. Consequently, the use of a controlled surface collection strategy is important for investigating spatially isolated and/or overlapping components. Although the areas under investigation do not represent ideal conditions (since they consist of heavily deflated and eroded shorelines), the purpose of the present research is concerned with documenting general trends in the artifact distributions. The operating assumption is that artifactual material is transported down the shoreline slope but not horizontally along the shore. In other words, artifacts eroding out along the shoreline retain information about the spatial location of occupations because they are not subject to mixing with materials displaced from other areas of the levee. Through the implementation of a controlled surface collection technique and the identification of culture-historic diagnostics, it is possible then to examine any occupational shifts that may have occurred through time along the present day levee margin.

To accomplish the stated goals, a total of 89 10 by 10 meter surface collection units were placed along the northern shoreline, portions of the interior levee crest, and along the southern boundary of the site. Placement of the collection units in these areas provided the opportunity for an intensive collection of the two previously identified artifact loci as well as a newly discovered lithic concentration.

The surface collection units yielded a total of 1,184 artifacts: 659 pottery sherds and 525 pieces of lithic debitage, tools, and tool fragments. These artifacts were distributed mostly along the northern shoreline and extended 270 meters east of the point where the river and tributary join. The area of highest artifact density however was between grid points 470 and 570 East along the shoreline (Figure 19). In comparison, the artifact density was much lower at Locus B. Rudolph's preliminary observation of the sparsity of the artifact distribution at this location (Locus B) thus appears to be correct (Rudolph 1979). A light scatter of artifacts were found eroding out along the length of the levee crest measuring approximately 250 meters long. Data obtained from subsequent shovel test units placed in the grassy area between locus A and B indicate the presence of artifacts in this zone as well. On the south side of the levee crest, the artifact density drops off rapidly until the area of the quartz concentration (Locus C) is reached. This concentration is confined to an area approximately 50 by 30 meters in size and is characterized by a relatively high density of quartz tools and debitage. Unfortunately, no diagnostic artifacts were recovered from this locus during the surface collection, so the cultural affiliation and its possible link to the other two loci was not fully resolved. Excluding the area between Loci B and C, Site 9Tp366 is estimated to be 2.1 hectares (5.3 acres) in size. This estimate is based on the distribution of artifacts along both the shoreline and the levee crest (Loci A and B) as well as the area separating the two. A portion (approximately 0.48 hectares or 1.2 acres) of this middle area has been heavily deflated by frequent lake

inundations and is shown as a mud-flat in Figure 19. Although no artifacts were recovered from this area, the presence of artifacts along both its north (shoreline) and south (ridge crest) perimeter suggest that this area was originally part of the site.

As noted previously, the surface collection procedure yielded 656 pottery sherds. Laboratory analysis of the surface treatments revealed that the overwhelming majority of these sherds were plain ceramics, although seven different types of surface treatments (excluding the unidentified, eroded and unmodified categories) were identified in the collection (Table 14). Of these seven decorative categories, the check stamped and complicated stamped ceramics account for over 85 percent of the decorated sherd collection and 8.6 percent of the total collection. Check stamped designs were the most abundant decorated surface finishes recovered at Site 9Tp366.

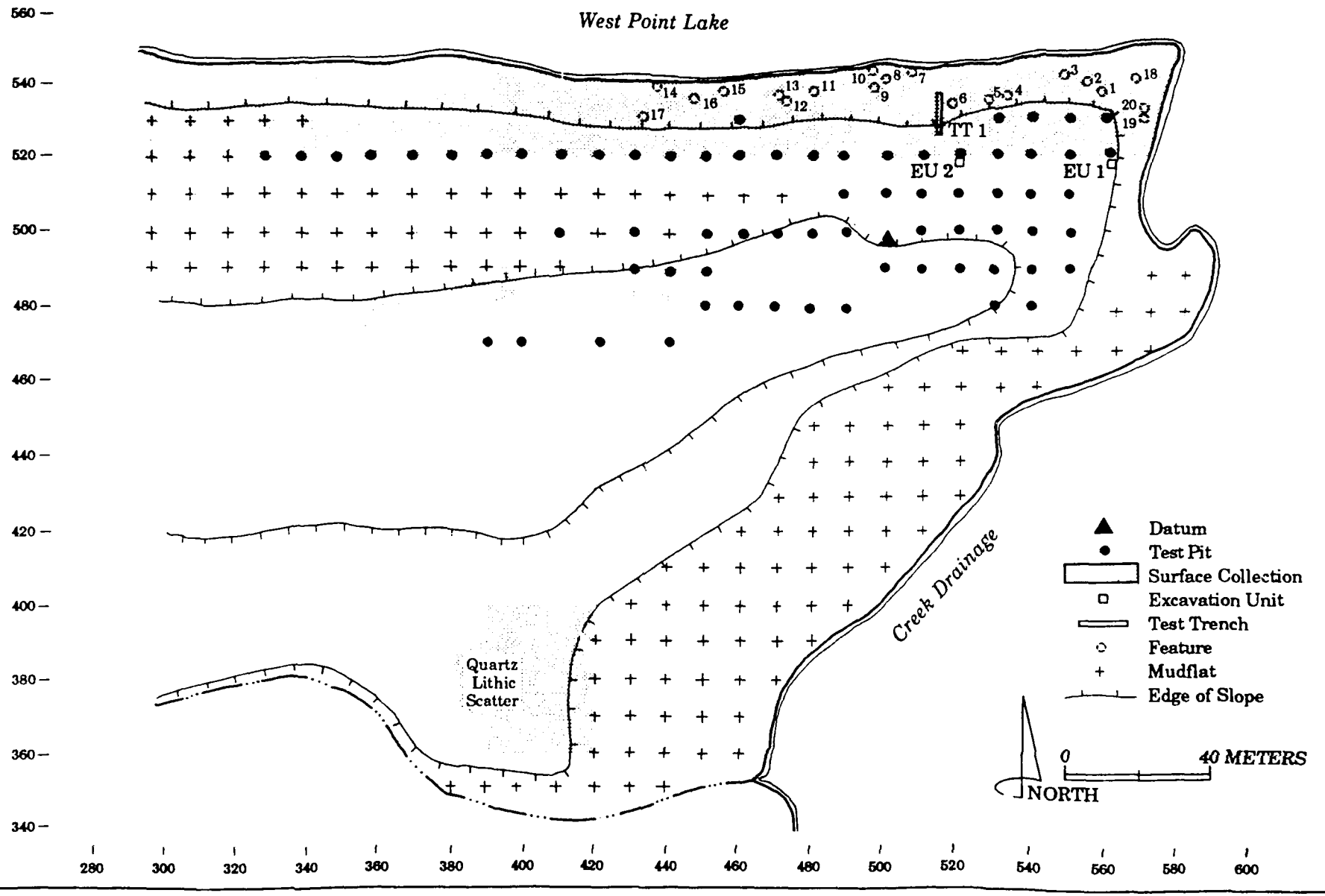
TABLE 14. Site 9Tp366 Ceramics Recovered By Controlled Surface Collection

	CERAMIC FORM							
SURFACE TREATMENT	Rim	Body	Base	Handles	Disk	Shoulder	Totals	%
Applique	1				0	0	1	0.2
Medium Incised		1					1	0.2
Finger Pinched	2		0		0	0	2	0.3
Cord Marked		1	0	0	0		1	0.2
Plain	23	542	2	1		1	569	86.3
Complicated Stamped	4	9	0	1		4	18	2.7
Checked Stamped	3	35	1	0	0	0	39	5.9
Simple Stamped	1	4	0	0	0	0	5	0.8
Unmodified			0	0	0	2	2	0.3
Eroded		19	0	0		1	20	3.0
Unidentified	1		0	0	0	0	1	0.1
Totals	35	611	3	2	0	8	659	100.0

Check stamped pottery first appeared in the Georgia piedmont during the late Early Woodland Post-Kellog focus around 300 B. C. and gradually disappeared at the end of the Middle Woodland Cartersville period, sometime before A. D. 500 (Caldwell 1958:38). Earlier dates are assigned to the check stamped ceramic components (Deptford) located in the coast plain regions of eastern Alabama, Florida, Georgia, South Carolina, and the southeastern portion of North Carolina (Caldwell and Waring 1939, Smith 1971, Thomas and Larson 1979, Milanich 1971, Anderson 1979). Summarizing the available literature, Anderson (1982:281) proposes a date range of 800 B. C. to A. D. 500 for the occurrence of check stamped pottery within the southeastern Atlantic Coastal Plain Physiographic Province.

Several forms of check stamping are recognized for Woodland period occupations in the southeast and Georgia specifically. Most prominent among

Figure 19
Site 9Tp366 Investigations



them are check stamped and linear check stamped. Linear check stamping consists:

> of a repeated parallel arrangement of two longitudinal lands which contain a series of finer transverse lands.... The longitudinal lands are invariably heavier and usually higher than the transverse lands (Caldwell and Waring 1939; cited in Anderson 1982:277)

It follows, then, that the regular check stamped design exhibits lands that are equal in size with the longitudinal lands being the same height as the transverse lands. Caldwell recognized differences in the design elements of check stamped pottery recovered along the lower Savannah River from the check stamped pottery found in the Georgia Piedmont Province. In an attempt to separate these surface finishes, he (1958) presented the Cartersville series, which varies from the coastal Deptford series in the following ways:

1) linear check stamping is comparatively rare in the Cartersville wares;

2) check size range is comparatively restricted in the Cartersville wares;

3) vessels (typically) are plain from the shoulder to the rim (where shoulders were present) in Cartersville wares; and

4) tetrapodal supports are common in Cartersville wares.

Anderson (1985:341) utilized yet another sorting criterion in separating Deptford from Cartersville wares at the Rucker's Bottom Site (9Eb91). In his analysis, micaceous/temperless paste wares were assigned to the Cartersville series, while the ceramics exhibiting the sandier or granular (1.0-2.0 mm) paste were assigned to the Deptford series.

Using the criteria stated above, the presence of both Deptford and Cartersville series ceramics can be inferred from the analysis of the ceramics recovered at 9Tp366. Some specimens exhibited linear checking, while others were clearly of the regular check design. A wide range of variability in the size of of the checks was observed in the collection. In terms of the paste attributes, all 39 check stamped sherds exhibited a sand and grit temper/paste, with 27 sherds (69.2 percent) exhibiting a fine to medium paste (particles <1/2 mm in size) and 12 sherds (30.8 percent) exhibiting a medium to coarse paste (>1/2 mm in size). However, the analysis indicates that both fine/temperless and sandier sherds are present in other ceramic types within the collection. However, appreciable amounts of mica in the paste were not observed, thus casting some doubt about the utility of this attribute for sorting collections recovered from the West Point Lake project area.

Complicated stamped ceramics represent the next most frequently occurring surface finish. Unfortunately, the size and/or condition of many of these sherds restricted their utility for providing culture-historic identification. Identification was possible for one large Late Woodland Swift Creek Complicated Stamped sherd and several grit tempered Lamar Complicated Stamped sherds. The recovery of an Early Lamar finger pinched rim provides additional information for the occupation of this site during the Late Mississippian Period.

A Gulf Formational Stage occupation of Site 9Tp366 is indicated by the presence of simple stamped fiber tempered body sherds. Most of these sherds were found in association with the rock cluster features which were eroding out along the shoreline. Simple stamping of fiber tempered ceramics has been identified in Florida in the Norwood Series (Phelps 1965) and in the Tombigbee Basin and Tennessee Valley during the Wheeler Phase. In this latter region, the date range assigned to these ceramics is 1,000 to 800 B. C. (Walthall 1980).

A total of 525 lithic artifacts were recovered by the controlled surface collection of Site 9Tp366; the overwhelming majority of which were manufactured from quartz (Table 15). It is apparent from the collection that the initial process of core reduction never occurred at this site regardless of the time of occupation. This component of the lithic technology must have occurred at other locations or in the surrounding uplands where quartz materials could be easily procured. The presence of only three cores and the large quantity of thinning/retouch flakes in the collection supports this hypothesis. Also, the relatively large number of Stage I and II bifaces suggest that these were the forms brought to the site for final tool manufacture. A Mississippian period Hamilton Triangular (Figure 15l) and a Woodland period New Market projectile point (Figure 15e) were the only diagnostic lithic artifacts recovered during the surface collection procedure.

TABLE 15. Surface Collections at Site 9Tp366 - Lithic Artifacts

	Raw Material					
	Quartz	Quartz Crystal	Chert	Metavolcanics	Steatite	TOTALS
Debitage						
Primary	3		1			4
Secondary	1		1			2
Tertiary	261	17	26	3		307
Unidentified	90	4	1		3	98
Flake Blank	18	1				19
Shatter	55					55
Cores	3					3
Projectile Points	1		1			2
PPt Frags.	2					2
Bifaces						
Stage I	17	1				18
Stage II	10					10
Unid. Biface		1	1			2
Unifacial Tools	2		1			3
Totals	463	24	32	3	3	525
Percents	88.2%	4.6%	6.0%	0.6%	0.6%	100.0%

Shovel Tests at Site 9Tp366

The goals of the shovel test operation were to determine the site boundaries where surface collection techniques were inappropriate, and to further investigate the artifact density within these site boundaries. Shovel tests were placed on ten meter grid intervals, and all information obtained from these tests recorded on three by five note cards. After the completion of each shovel test a provenience card was filled out, which noted the excavator's name, date, the grid location of the pit, the field catalog number, and a commentary of the results of the excavation. This information was then used to determine the best method for proceeding with the testing operation, either through the placement of larger excavation units or block stripping.

The shovel test operation at Site 9Tp366 included 65 units that covered the level grassy area above the shoreline and the levee crest (Figure 19). Of these 65 units, 38 yielded ceramic and/or lithic material. The greatest density of materials was recovered near the confluence of the tributary and the river and along the west end of the levee crest. This region encompasses an area 30 meters wide (north/south) by 80 meters long (east/west) and is bounded to the north by the top of the shoreline cut, to the south by the levee crest, and to the west by the mud-flat area. Shovel test transects beginning at the western edge of the site near the confluence yielded numerous artifacts, some of which were buried as deep as 50 centimeters below ground surface. A typical soil profile in this area consisted of recent alluvium of variable thickness, capping a dark yellow brown (10YR4/4) sand, which occurred as high as 18 centimeters and as deep as 40 centimeters below ground surface. The thickness of this horizon was variable, although 20 to 30 centimeters appeared to be the norm. Both the top recent alluvium and the dark yellow brown sandy horizon contained artifacts within this area of the site. The most frequently found artifacts included lithic debitage and check stamped pottery (Table 16).

The shovel test units located on the levee crest exhibited a much shallower profile, with recently deposited coarse sands overlaying the red clay subsoil. The shovel tests encountered subsoil in this area at a depth of 25 centimeters or less. Although the units located along the crest yielded artifacts, all of these materials came from the recent alluvium horizon. Shovel test units placed in the mud-flat area located to the north of the levee crest and south of the shoreline cut, yielded no additional artifactual material.

Feature Excavations at Site 9Tp366

Investigations conducted at Site 9Tp366 also involved the excavation of 20 rock clusters found along the heavily deflated shoreline (Figure 19). Project Consultant Mr. Frank Schnell of the Columbus Museum observed that rock cluster features, similar to those found at Site 9Tp366, are usually associated with Middle Woodland occupations south of the project area, and the excavation of the coarse sands beneath these clusters did indeed yield a significant quantity of check stamped pottery. Although the context of these features are highly suspect,

TABLE 16. Artifacts Recovered From Shovel Test Units at Site 9Tp366

Shovel Test		Ceramics				Lithics		
Northing	Easting	Plain	Check St.	Comp. St.	Other Cer.	Debitage	Biface	Core
470	400	3						
470	420	1						
470	440	2				2		
480	450					3		
480	460					1		
480	470	1						
480	480	1				1		
480	490					2		
480	530	1			1	2		
490	500					1	1	1
490	510	1				2		
490	520	3				3		
490	530	3		1		1		
490	540	3				2		
500	470					1		
500	480	1				2		
500	490						1	
500	500					1		
500	510	1	1					
500	520	2	2			2		
500	530		1		1	6		
500	540					1		
510	490	1						
510	500					1		
510	510	1						
510	520		1					
510	530					1		
510	540					1		
510	550	1	1			3		
520	420	2						
520	520		1					
520	530	1	1					
520	540	2						
520	550	1						
520	560	4	2					
530	530	1						
530	540					4		
530	550					2		
Totals		38	10	1	2	40	2	1

this data suggests that the overlaying rocks may have preserved the locational integrity of at least some of the materials lying beneath their surfaces.

Present day recreational activities as well as the natural erosional processes has had a major impact on these clusters. Many of the features contained modern day trash (ie. cigarette butts, candy wrappers, and pull tops) on their surfaces and some of them had tire tracks running through them. As a result of these disturbances, the clusters exhibit a variety of appearances ranging from tightly clustered to very dispersed. The rock features came in all sizes, but were generally circular or rectangular in shape. The excavations indicated that they all rested on coarse beach sands with no prepared basins or soil discoloration present.

Presented below is a description of the general appearance, the artifactual content, and an analysis of the rock composition of each rock cluster investigated during the 1989 field season.

Feature 1

Feature 1 was a moderate sized rock cluster that was tightly clustered towards its center, but more dispersed along its northern boundary. The feature measured 90 cm (N/S) by 90 cm (E/W). The rocks comprising this feature included 62 quartz cobbles (8.5 kilograms), 41 fired quartz cobbles (5.5 kilograms), 23 fired granitic rocks (9 kilograms), and three non-fired granitic rocks (0.5 kilograms). Among these rocks was one simple stamped fiber tempered sherd. Excavation of the coarse sands beneath the rocks yielded five tertiary flakes, two unidentifiable flakes, and one piece of shatter. The elevation of this feature was 191.47 NGVD.

Feature 2

Feature 2 was a large rock cluster that was tightly clustered towards its center but was more dispersed along both its northern and southern boundaries. The feature measured 140 cm (N/S) by 160 cm (E/W). The rocks comprising this feature included 33 quartz cobbles (7.5 kilograms), 139 fired quartz cobbles (42 kilograms), 22 fired granitic rocks (8.5 kilograms), and seven non-fired granitic rocks (1.5 kilograms). Among these rocks was one check stamped rim sherd. Excavation of the coarse sands beneath the rocks yielded four tertiary flakes, three unidentifiable flakes, two pieces of shatter, a groundstone netsinker fragment (Figure 17o), a plain smoothed rim, and one unidentifiable decorated sherd. The elevation of this feature was 191.16 meters NGVD.

Feature 3

Feature 3 was a very large rock cluster that was tightly clustered around its periphery, although towards its center was an area where the rocks were missing or displaced. The feature measured 180 cm (N/S) by 200 cm (E/W). The rocks comprising this feature included 139 quartz cobbles (27.5 kilograms), 156 fired

quartz cobbles (34 kilograms), 303 fired granitic rocks (76 kilograms), and nine non-fired granitic rocks (2 kilograms). No artifacts were found among these rocks. Excavation of the coarse sands beneath the rocks yielded one primary flake, five tertiary flakes, one unidentifiable flake, two pieces of shatter, and a Stage I biface. The elevation of this feature was 191.08 NGVD.

Feature 4

Feature 4 was a large, compact rock cluster that was nearly circular in outline (Figure 20). The feature measured 150 cm (N/S) by 150 cm (E/W). The rocks comprising this feature included 127 quartz cobbles (22.5 kilograms), 217 fired quartz cobbles (53 kilograms), and 71 fired granitic rocks (13.5 kilograms). No artifacts were found among these rocks. Excavation of the coarse sands beneath the rocks yielded four tertiary flakes, three pieces of shatter, one plain body sherd, six check stamped body sherds, and one check stamped rim sherd. The elevation of this feature was 191.41 meters NGVD.

Feature 5

Feature 5 was a large, dispersed rock cluster that was nearly rectangular in outline. The feature measured 110 cm (N/S) by 150 cm (E/W). The rocks comprising this feature included 127 quartz cobbles (21 kilograms), 17 fired quartz cobbles (2.5 kilograms), and 17 fired granitic rocks (3 kilograms). Among these rocks was one check stamped body sherd. Excavation of the coarse sands beneath the rocks yielded two tertiary flakes, one unidentifiable flake, two smoothed plain body sherds, three check stamped body sherds, and one unidentifiable stamped sherd. The elevation of this feature was 191.54 meters NGVD.

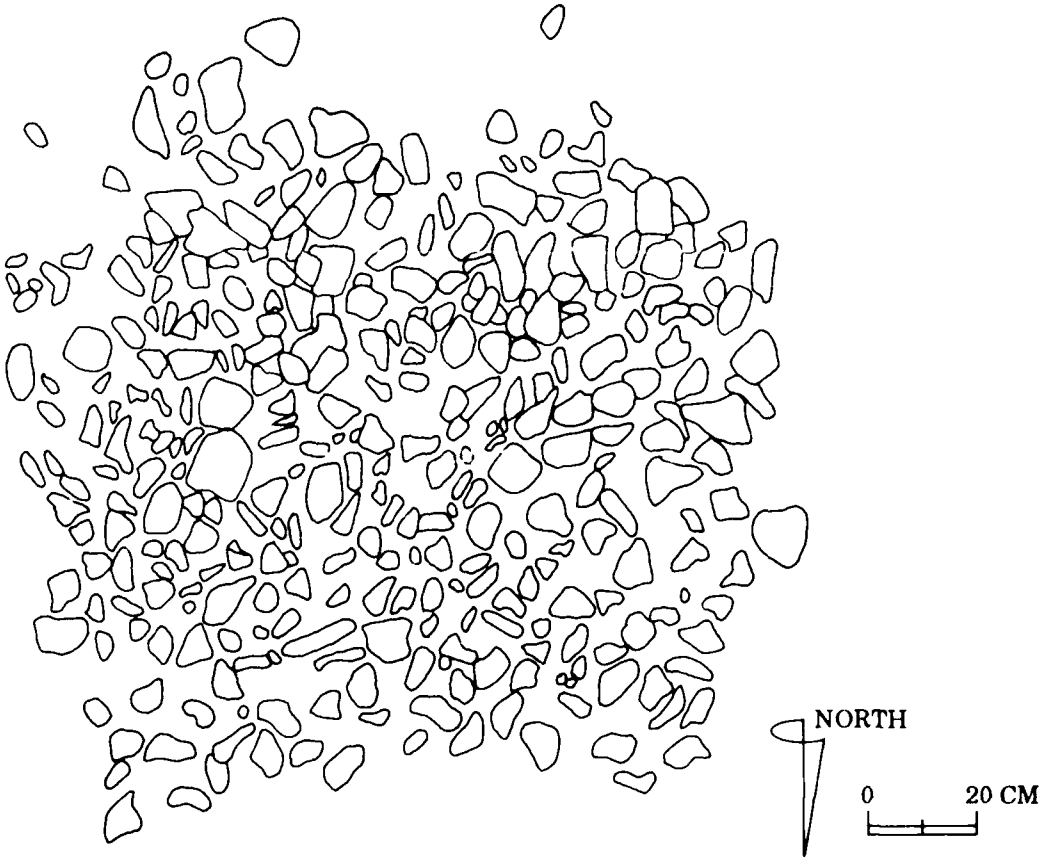
Feature 6

Feature 6 was a small, dispersed rock cluster that was rectangular in outline. The feature measured 60 cm (N/S) by 85 cm (E/W). The rocks comprising this feature included 32 quartz cobbles (4 kilograms), 53 fired quartz cobbles (10 kilograms), and five fired granitic rocks (1 kilogram). No artifacts were found among these rocks on the surface. Excavation of the coarse sands beneath the rocks yielded four check stamped body sherds, and one check stamped rim sherd. The elevation of this feature was 191.32 meters NGVD.

Feature 7

Feature 7 was a small, dispersed rock cluster that was rectangular in outline. The feature measured 80 cm (N/S) by 110 cm (E/W). The rocks comprising this feature included 11 quartz cobbles (2 kilograms), 26 fired quartz cobbles (8 kilograms), four fired granitic rocks (2.5 kilograms), and two non-fired granitic rocks (0.5 kilograms). No artifacts were found among these rocks. Excavation of the coarse sands beneath the rocks yielded one smoothed plain body sherd. The elevation of this feature was 190.43 meters NGVD.

Figure 20
Site 9Tp366 Feature 4



Feature 8

Feature 8 was a small, dispersed rock cluster that was circular in outline. The feature measured 80 cm (N/S) by 80 cm (E/W). The rocks comprising this feature included 17 quartz cobbles (5 kilograms), 33 fired quartz cobbles (18 kilograms), and two fired granitic rocks (0.5 kilograms). No artifacts were found among these rocks. Excavation of the coarse sands beneath the rocks yielded five tertiary flakes and two smoothed plain body sherd. The elevation of this feature was 190.63 meters NGVD.

Feature 9

Feature 9 was a large, dispersed rock cluster that was rectangular in outline. The feature measured 110 cm (N/S) by 150 cm (E/W). The rocks comprising this feature included nine quartz cobbles (3 kilograms), 55 fired quartz cobbles (27 kilograms), and nine fired granitic rocks (5.5 kilograms). No artifacts were found among these. Excavation of the coarse sands beneath the rocks yielded 17 tertiary flakes, three unidentifiable flakes, five pieces of shatter, seven smoothed plain body sherds, three check stamped body sherds, and one simple stamped body sherd. The elevation of this feature was 190.73 meters NGVD.

Feature 10

Feature 10 was a large, dispersed rock cluster that was rectangular in outline. The feature measured 110 cm (N/S) by 160 cm (E/W). The rocks comprising this feature included 31 quartz cobbles (4.5 kilograms), 165 fired quartz cobbles (37 kilograms), five fired granitic rocks (1.5 kilograms), and three non-fired granitic rocks (1.0 kilograms). No artifacts were found among these rocks. Excavation of the coarse sands beneath the rocks yielded one secondary flake, two tertiary flakes, three unidentifiable flakes, and one smoothed plain body sherd. The elevation of this feature was 190.42 meters NGVD.

Feature 11

Feature 11 was a small, compact rock cluster that was circular in outline. The feature measured 50 cm (N/S) by 70 cm (E/W). The rocks comprising this feature included 22 quartz cobbles (6 kilograms), 42 fired quartz cobbles (14 kilograms), and one fired granitic rock (0.5 kilograms). No artifacts were found among these rocks. Excavation of the coarse sands beneath the rocks yielded three tertiary flakes, one piece of shatter, five smoothed plain body sherds, and one check stamped body sherd. The elevation of this feature was 190.78 meters NGVD.

Feature 12

Feature 12 was a large, compact rock cluster that was circular in outline. The feature measured 160 cm (N/S) by 150 cm (E/W). The rocks comprising this feature included 78 quartz cobbles (17.5 kilograms), 62 fired quartz cobbles (12.5

kilograms), 35 fired granitic rocks (27 kilograms), and two non-fired granitic ricks (0.5 kilograms). No artifacts were found among these rocks. Excavation of the coarse sands beneath the rocks yielded nine tertiary flakes, one Stage I biface, two smoothed plain body sherds, one check stamped body sherd, and one smoothed plain body rim. The elevation of this feature was 190.99 meters NGVD.

Feature 13

Feature 13 was a large, compact rock cluster that was circular in outline. The rocks in the center of this feature have been displaced or removed altogether. The feature measured 130 cm (N/S) by 120 cm (E/W). The rocks comprising this feature included 99 quartz cobbles (12 kilograms), 98 fired quartz cobbles (27 kilograms), and 25 fired granitic rocks (7.5 kilograms). No artifacts were found among these rocks. Excavation of the coarse sands beneath the rocks yielded one flake blank, one Stage I biface, and two smoothed plain body sherds. The elevation of this feature was 190.82 meters NGVD.

Feature 14

Feature 14 was a moderate sized, very dispersed rock cluster that was circular in outline. The feature measured 110 cm (N/S) by 100 cm (E/W). The rocks comprising this feature included 15 quartz cobbles (2 kilograms), 33 fired quartz cobbles (7 kilograms), seven fired granitic rocks (2.0 kilograms), and one non-fired granitic rock (0.5 kilograms). No artifacts were found among these rocks. Excavation of the coarse sands beneath the rocks yielded one tertiary flake. The elevation of this feature was 190.60 meters NGVD.

Feature 15

Feature 15 was a small, dispersed rock cluster that was circular in outline. The feature measured 80 cm (N/S) by 90 cm (E/W). The rocks comprising this feature included 27 quartz cobbles (3 kilograms), 26 fired quartz cobbles (8 kilograms), and four fired granitic rocks (1.5 kilograms). No artifacts were found among these rocks. Excavation of the coarse sands beneath the rocks yielded three tertiary flakes. The elevation of this feature was 190.48 meters NGVD.

Feature 16

Feature 16 was a small, very dispersed rock cluster that was rectangular in outline. The feature measured 50 cm (N/S) by 80 cm (E/W). The rocks comprising this feature included 13 quartz cobbles (3 kilograms), 18 fired quartz cobbles (4.5 kilograms), and 15 fired granitic rocks (4.0 kilograms). No artifacts were found among these rocks. Excavation of the coarse sands beneath the rocks yielded one tertiary flake and two smoothed plain body sherds. The elevation of this feature was 190.63 meters NGVD.

Feature 17

Feature 17 was a moderate sized, very dispersed rock cluster that was circular in outline. Several of the rocks within this cluster were very large. The feature measured 110 cm (N/S) by 100 cm (E/W). The rocks comprising this feature included 11 quartz cobbles (1.0 kilograms), 15 fired granitic rocks (4.0 kilograms), and seven non-fired granitic rocks (11.0 kilograms). No artifacts were found among these rocks. Excavation of the coarse sands beneath the rocks yielded two tertiary flakes, one unidentifiable flake, six smoothed plain body sherds, and one smoothed plain rim sherd. The elevation of this feature was 190.85 meters NGVD.

Feature 18

Feature 18 was a small, dispersed rock cluster that was circular in outline. The feature measured 110 cm (N/S) by 80 cm (E/W). The rocks comprising this feature included six quartz cobbles (1.75 kilograms), 99 fired quartz cobbles (17.5 kilograms), five fired granitic rocks (1.0 kilograms), and eight non-fired granitic rocks (1.0 kilograms). No artifacts were found among these rocks. Excavation of the coarse sands beneath the rocks yielded four tertiary flakes. The elevation of this feature was 191.11 meters NGVD.

Feature 19

Feature 19 was a small, very dispersed rock cluster that was circular in outline. Several of the rocks within this cluster were very large. The feature measured 70 cm (N/S) by 70 cm (E/W). The rocks comprising this feature included 16 quartz cobbles (2.5 kilograms), 47 fired quartz cobbles (6.25 kilograms), six fired granitic rocks (1.5 kilograms), and four non-fired granitic rocks (0.5 kilograms). No artifacts were found among these rocks. Excavation of the coarse sands beneath the rocks yielded two tertiary flakes, two unidentifiable flakes, three pieces of shatter, one flake blank, and one brushed plain body sherd. The elevation of this feature was 191.32 meters NGVD.

Feature 20

Feature 20 was a small, very dispersed rock cluster that was circular in outline. The feature measured 60 cm (N/S) by 40 cm (E/W). The rocks comprising this feature included eight quartz cobbles (1.0 kilogram), 43 fired quartz cobbles (5.5 kilograms), 12 fired granitic rocks (1.0 kilogram), and eight non-fired granitic rocks (1.5 kilograms). No artifacts were found among these rocks. Excavation of the coarse sands beneath the rocks yielded one tertiary flake, one flake blank, one Stage II biface, one unidentifiable biface fragment. The elevation of this feature was 191.28 meters above sea level.

Analysis of the Spatial Distribution of Artifacts

A major goal of the present research was the identification of the spatial (horizontal) integrity of each cultural occupation unit at the site. To accomplish

this goal, ceramic data recovered from both controlled surface collection and shovel test units were used to map the locations of the different occupation units. The present analysis focused only on decorated surface treatments because of the information they relay about multi-regional ethnic affiliations. When more detailed descriptions of local occupational assemblages become available, it may be possible to include other sherd attributes in future analyses.

In defining occupational units at Site 9Tp366, four separate categories of surface treatments were chosen. These categories represent combinations of decorative treatments that were combined for the following reasons. First, the data collected from the surface collection units indicated that the site was multi-component and that one of the components was represented by a Lamar occupation. Lamar ceramic assemblages contain a number of ceramic attributes including complicated stamped, incised, finger pinched and appliqued wares. These four surface treatments were combined during the analysis and interpreted as reflecting a Late Mississippian occupation. A potential bias is noted here because of the presence of complicated stamped wares other than Lamar. For instance, several Swift Creek Complicated Stamped ceramics have been found at Site 9Tp366, which, for the purposes of this analysis, have been combined with Mississippian period wares. This is not considered a major problem, however, given the overwhelming quantity of Mississippian period complicated stamped wares compared to other occupations using similar surface treatments. Second, the simple stamped and cord marked pottery were grouped separately because of their association with many different occupations. The overall low number of ceramics exhibiting these surface treatments argues against the presence of a "pure" simple stamped or cord marked occupation and increases the likelihood that they represent minority types within larger, more diverse, assemblages. Therefore the analysis wanted to examine the co-association of these surface treatments with other more temporally diagnostic decorative styles. Third, check stamping is also known to occur in various assemblages, but only as a minority type in all but Middle Woodland components. The quantity of check stamped ceramics recovered at Site 9Tp366 suggest the presence of a Middle Woodland component and argues against a minority type status. Fourth, and finally, the fiber tempered ceramics were grouped separately because of their restricted temporal range pertaining to the Gulf Formational and Early Woodland Periods.

The results of the analysis indicates three areas of the site with different occupational histories (Figure 21). The first area measures approximately 50 by 40 meters and includes the eastern edge of the site that overlooks the confluence of the tributary and the river. Groups wanting to take advantage of the available resources in both the river and smaller tributary would have preferred this location and it is not surprising that all four categories of surface treatments are represented here. The density pattern of artifact categories indicate the presence of a substantial Middle Woodland (check stamped) component, which is strongly expressed in the western half of the area, with less intensive Gulf Formational (fiber tempered) and Late Mississippian (Lamar ceramic traits) occupations located in the eastern half of the area. The relatively light Mississippian occupation found in Area 1 compared to other parts of the site is surprising and

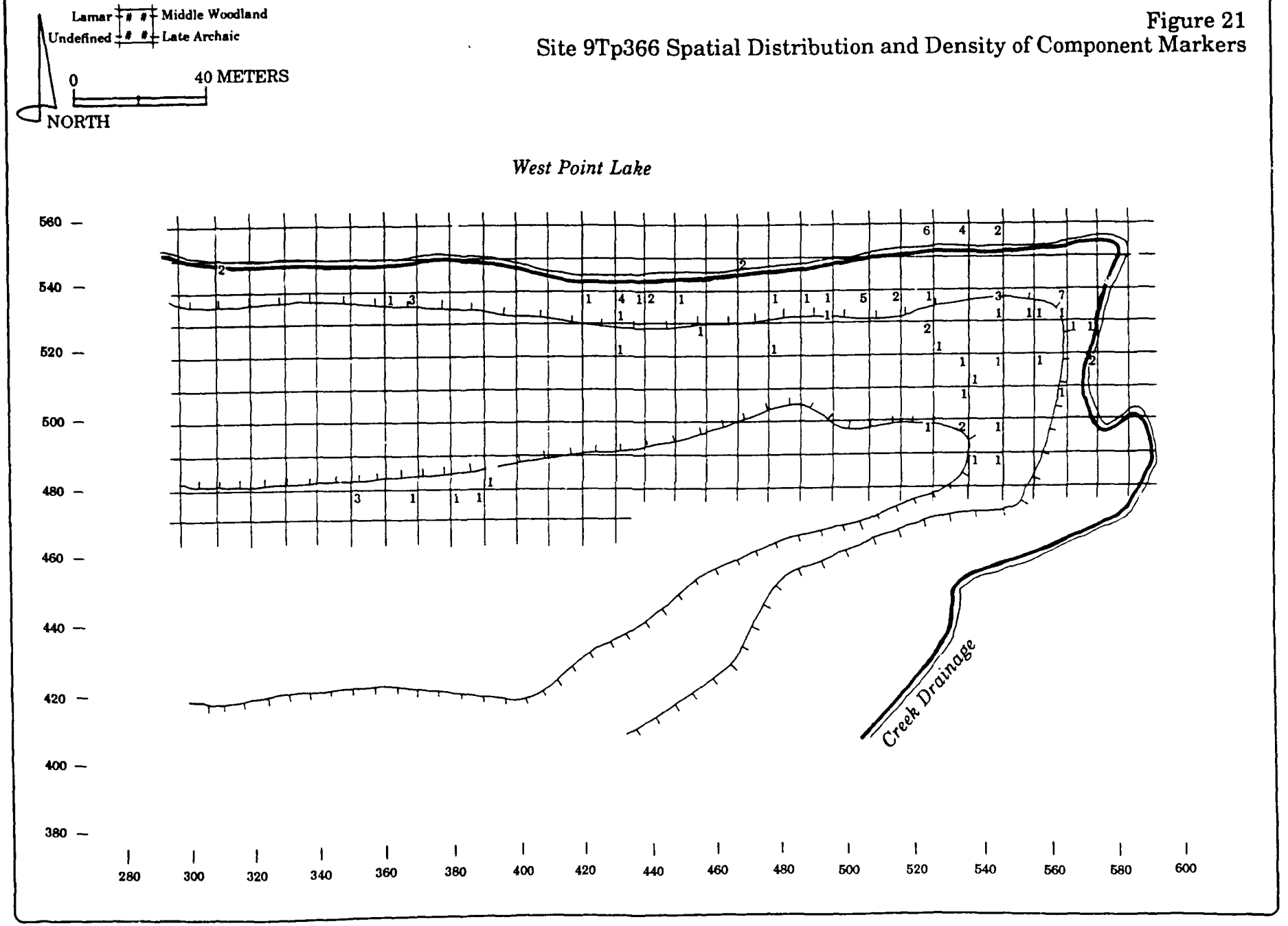


Figure 21
Site 9Tp366 Spatial Distribution and Density of Component Markers

may reflect this group's decreased dependence of riverine resources as a principle food source. The same is not true for the Gulf Formational Period occupation. Although relatively few fiber tempered ceramics were recovered at the site, three-quarters of the total assemblage were found in this area. It is apparent from the quantity of materials left at the site that Gulf Formational Period groups did not occupy Site 9Tp366 for an extended period of time. Instead, the occupation appears to represent a short term extractive campsite that focused on terrestrial and riverine resources occurring near the tributary and river confluence region. The final occupational category represented by simple stamped and cord marked ceramics is difficult to interpret in terms of culture-historic affiliations because both Mississippian and Middle Woodland ceramic assemblages contain these traits as minority types. The low density of simple stamped and cord marked wares in Area I indicates their minority status and at the present time it is not possible to assign an occupational period to these surface treatments.

The second area of occupation defined by the spatial analysis is located west of Area I and measures 50 by 40 meters in size. This area extends from grid-lines 480E to 520E and grid-lines 500N to 540N (Figure 21). Within Area II, the composition of the collections are overwhelmingly dominated by Middle Woodland check stamped pottery. The ceramic component of this area included 17 (89.5 percent) check stamped specimens, one (5.3 percent) fiber tempered specimen, and one (5.3 percent) Mississippian finger pinched specimen. Both the fiber tempered and finger pinched specimens were recovered from surface collection unit 540N/480E on the extreme western edge of the area, and may represent occupations associated with Area III (discussed below). The Middle Woodland occupation of Area II is considered an extension of the same component of Area I, with the only difference being that in Area II the check stamped wares exhibit a higher density than in Area I and the diversity of decorative styles is greatly reduced. The continuous distribution of the Middle Woodland wares is easily shown by extending the boundary separating Area I and Area II 20 meters east of the 520E line to the 540E line (Figure 21). By including this zone within Area II the number of check stamped sherds is significantly increased with only minor increases in the number of other decorative styles. Also, the same holds true if all the land encompassed within Area I is considered. However, for purposes of locating the most intense and "pure" occupations of the site, it is best to distinguish between these two areas of occupation.

The third area of occupation defined by the spatial analysis is located west of Area II and measures 70 by 20 meters in size. This area extends from grid-lines 410E to 480E and grid-lines 520N to 540N (Figure 21). The area south of grid-line 540N may have been part of the Area III occupation at one time, but frequent flooding of this region has removed much of the original soils. Shovel test units placed in the area failed to yield artifactual material and therefore it was excluded from the analysis. Within Area III, the composition of the collections are dominated by Mississippian wares (N=11; 68.8 percent) exhibiting complicated stamped, incised, finger pinched and appliqued surface treatments. Check stamped (N=2; 12.5 percent), and simple stamped and cord marked (N=3, 18.8 percent) surface finishes are minimally represented in the collection. The density

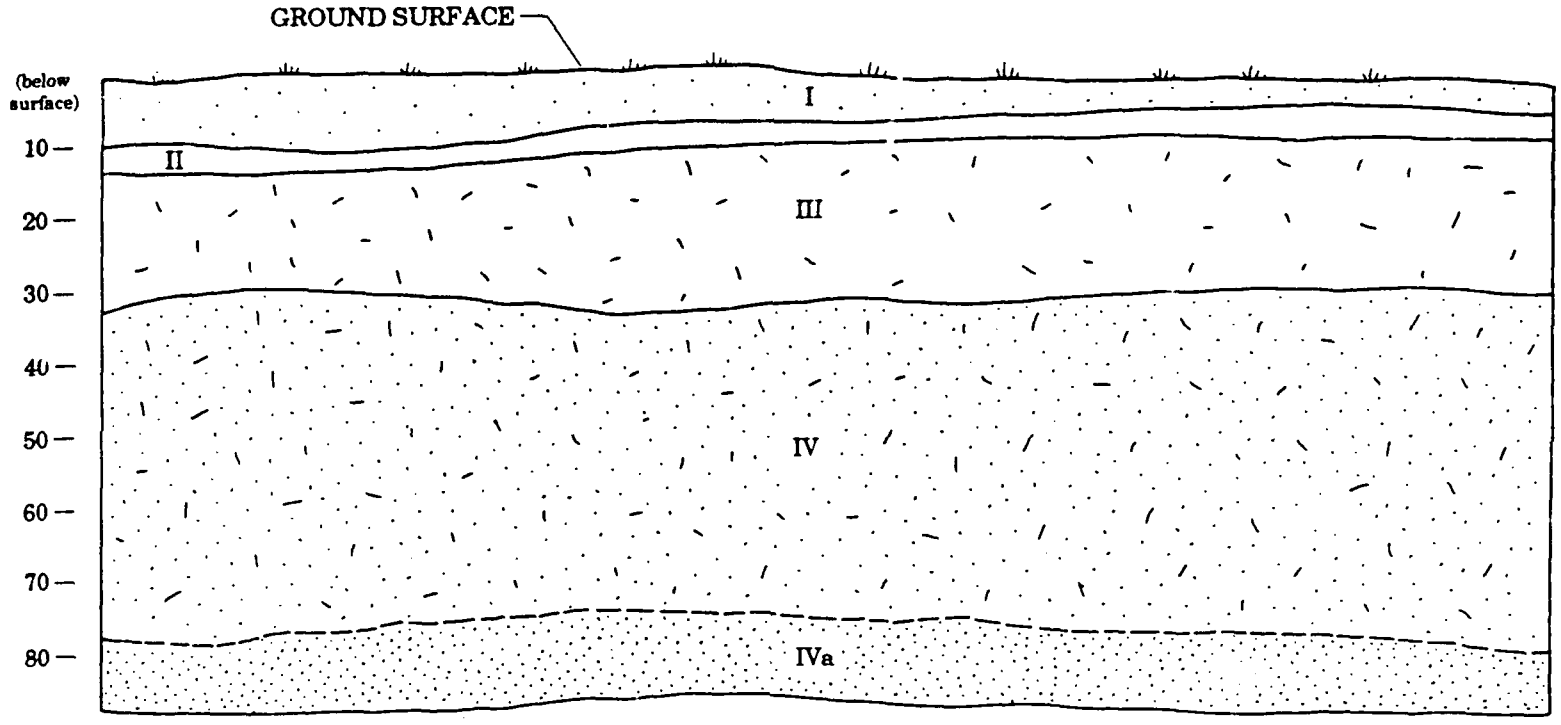
of materials within this area is suggestive of a less intense occupation than the Middle Woodland component found in Area II. Also, the focus of this occupation was somewhat different from the previous occupations in that its location was not influenced by the attractiveness of the confluence area. During the Late Mississippian Period, economies were much more involved in agricultural production and this may have been a deciding factor for their choice of settlement location. Area III is located at that point along the levee where more available space for agricultural production was possible. The top of the levee trends towards the southwest at this juncture, leaving more level ground between it and present day shoreline. It is possible that this area may have been used for agricultural activities and that the location of the settlement would have been nearby. Unfortunately, this area of the site has received the most damage from frequent floods, with only a narrow strip along the shoreline retaining intact soils.

Analysis and Results of Excavation Units

The goal of the large unit excavations focused on defining the vertical extent of the cultural deposits and their preservational characteristics. This investigation began by placing one 2 by 2 meter excavation unit in the area near the juncture of the stream and river (Area I) and a second unit above the shoreline where the surface collection indicated a concentration of check stamped ceramics (Area II). Both excavations proceeded in a normal fashion, using 10 centimeter arbitrary levels within natural soil strata. During the initial phase of the investigation the changes in soil texture and color between some of the soil horizons were vague and not recognized until the profiles were cleaned at the end of a level. When this occurred, it was noted on the square level form. As the work progressed and the crew became more familiar with the soils, recognition of different soil strata was less of a problem.

The first excavation unit (EU 1) proceeded to a depth of 86 centimeters below ground surface (Figure 22). The uppermost soil horizon (Horizon I) consisted of recently deposited coarse, yellowish brown (10YR6/4) sands. Underlying this recent alluvium was a thin layer of dark greyish brown (10YR4/2) sand that contained numerous mollusk shells and well preserved nutshells. The excellent state of organic preservation within this horizon (Horizon II) suggest a recent origin, although no historic artifacts were found. Below Horizon II was Horizon III; a 20 centimeter thick brown (10YR4/3) sand layer which exhibited frequent 10YR6/4 mottling of its matrix. The mottling became less frequent in Horizon IV, beginning at a depth of approximately 30 centimeters below ground surface. This horizon consisted of a dark yellowish brown (10YR4/4) colored sand with linear mottles caused by root casts and animal burrows. As the excavation continued through the horizon, the mottling decreased and the soil unit became more homogeneous in color. Near the bottom of the excavation unit, a minor color change occurred in the sand matrix. At approximately 78 centimeters below ground surface, the sands became more lighter in color (7.5YR4/6) primarily due to an increase of lighter colored sands in the mottles. This horizon was labelled Horizon IVa because it is not easily differentiated from the preceding soil horizon.

Figure 22
Site 9Tp366 Test Unit 1 Profile



I - 10YR6/4 YELLOWISH BROWN
II - 10YR4/2 DARK GRAYISH BROWN
III - 10YR4/3 BROWN
IV - 10YR4/4 DARK YELLOWISH BROWN
IVa - 7.5YR4/6 STONG BROWN

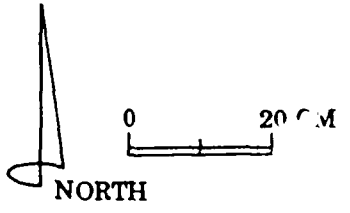


Table 17 lists the artifacts recovered from Excavation Unit 1. The majority (N=127; 80.9 percent) of the artifacts came from the top three excavation levels, which included Soil Horizons I and II, and the top half of Soil Horizon III. Excavation Level 2, which began at the top of Horizon II and extended 6 centimeters into Horizon III, was the most productive level yielding a variety of ceramic types and lithics. Included within this level were a large number of Middle Woodland plain and decorated ceramics and several Lamar (Mississippian complicated stamped designs) sherds. Although the overall sherd density significantly drops, the mix of Mississippian and Middle Woodland Period ceramics continued in Excavation Level 3 or in the upper half of Horizon III. Below a depth of 27 centimeters, the excavation yielded two additional ceramics and 28 lithic artifacts. The lithics consist mostly of quartz debitage, which increased in density as the excavation progressed through Soil Horizon IV. In Horizon IV at a depth exceeding 47 centimeters, the excavation yielded two lithic tools; a quartz core fragment in level 6 and a Late Archaic McIntire projectile point (Figure 14b) in level 7 (64 centimeters below surface). The presence of both fiber tempered pottery along the deflated shoreline and the lithic artifacts recovered from Excavation Unit 1 indicate a Late Archaic occupation in the area overlooking the confluence of the river and the tributary. Data obtained from Excavation Unit 1 also supports the results of the preliminary work (surface collection and shovel testing) by noting the presence of a substantial Middle Woodland occupation and a less intense Early Lamar occupation at this location. These two cultural components however, were inseparable in the top three soil horizons of Excavation Unit 1.

The location of Excavation Unit 2 was approximately 40 meters west of Excavation Unit 1 and south of the shoreline cut (Figure 19). This area overlooks the beach where a relatively large number of check stamped sherds were recovered during the surface collection operation. At this location, the excavation yielded a soil profile similar to the one observed in Excavation Unit I (Figure 23). The top horizon (Horizon I) consisted of a 20 centimeter thick dark brown (10YR4/3) sand that was mottled with pockets of a very pale brown (10YR7/4) sand. This horizon was recently deposited by the lake and was quickly removed. Underlying the recent alluvium, was a dark brown (10YR4/3) sand. This two to four centimeter thick horizon (Horizon II) was very homogeneous and exhibited disc plow scars on its surface. The excavation of Horizon II yielded a piece of historic glass and numerous pieces of driftwood and tree bark. Soil Horizon III was also a dark brown (10YR4/3) sand, but unlike the preceding layer this horizon exhibited numerous mottles of dark yellowish brown (10YR4/4) sands and manganese pebbles. The contact zone between Horizons II and III was vague and discontinuous. Below Horizon III, beginning at 28 centimeters ground surface, a dark yellowish brown (10YR4/4) horizon was encountered which extended to a depth of 40 centimeters below ground surface. This horizon (Horizon IV) also exhibited intense mottling by both dark brown (10YR4/3) and light yellowish brown (10YR6/4) sands. At a depth of 40 centimeters below ground surface, a 30 centimeter thick dark brown yellowish (10YR4/4) sandy deposit (Horizon V) was encountered. Mottling still occurs within this horizon, but for

TABLE 17. Materials Recovered From Excavation Unit 1 Site 9Tp366.

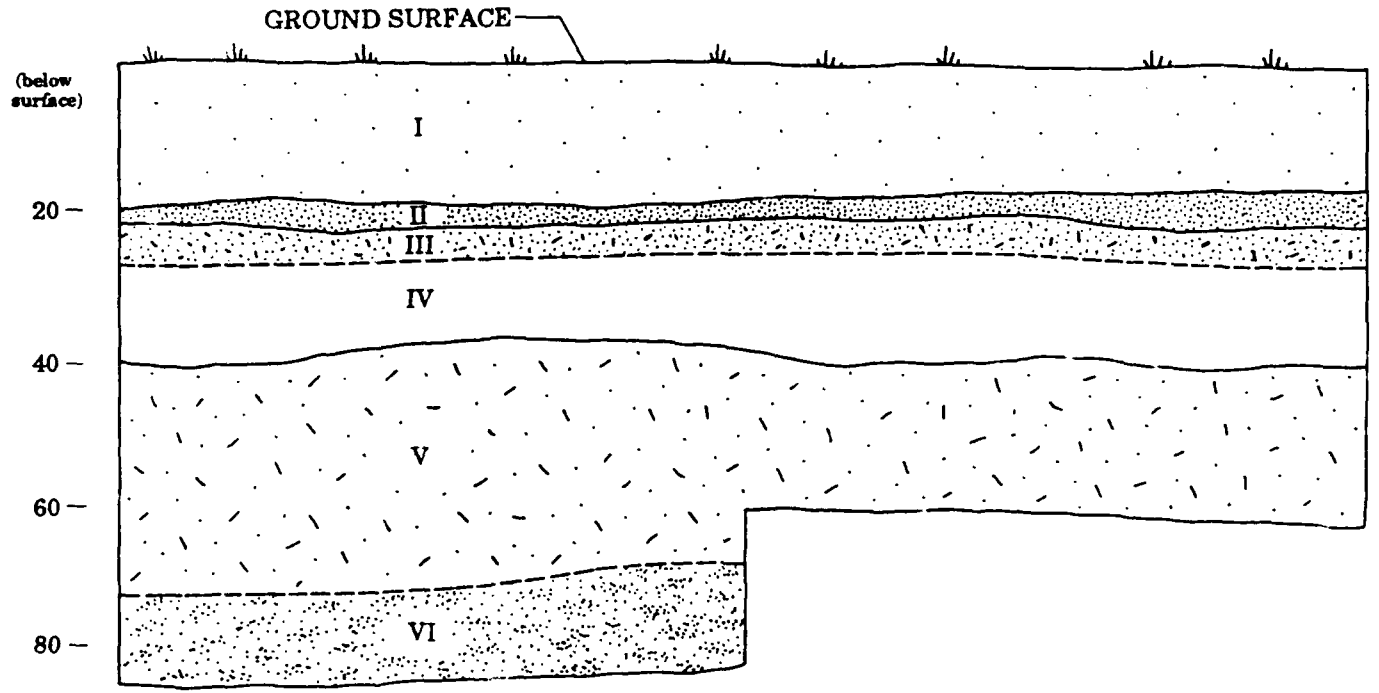
			Ceramics			Lithics		
Level	Depth*	Soil Horizon	Quantity	Sherd Form	Surface Treatment	Quantity	Artifact Code**	Total Artifacts/Level
1	7cm	I	7	Plain Body	Smoothed	1	LQF04	8
2	17cm	II&III	1	Dec. Rim	Applique	5	LHF03	
			1	Plain Rim	Unimodified	8	LQF03	
			7	Dec. Body	Check Stamp	1	LQF04	95
			2	Dec. Body	Comp. Stamp			
			60	Plain Body	Smoothed			
			9	Plain Body	N/D***			
			1	Plain Body	Unidentified			
3	27cm	III	1	Dec. Rim	Comp. Stamp	2	LGZ01	
			1	Plain Rim	Unmodified			24
			20	Plain Body	Smoothed			
4	37cm	III&IV	1	Plain Body	Smoothed	1	LQF04	2
5	47cm	IV	1	Dec. Body	Check Stamp	2	LQF03	
						4	LQZ01	7
6	54cm	IV				1	LQC01	
						1	LQF02	5
						3	LQF05	
7	64cm	IV				1	LHF02	
						2	LQF01	
						1	LQF03	8
						2	LQF04	
						2	LQZ01	
8	74cm	IV				4	LQF03	
						1	LQF03	6
						1	LQH02	
9	85cm	IV&IVa				1	LCF04	1
Auger 1	125cm						1	LQF03
Totals			Ceramics=112			Lithics=45		Grand Total=157

*Depth: Recorded Below Surface

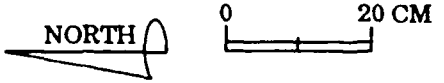
**Artifact Code Combines Material Code (1st two digits) and Artifact Type (3rd through 5th digits)
Material Code: LQ-Quartz, LC-Quartz Crystal, LH-Chert, LM-Metavolcanic, LG-Granitic, ST-Steatite, LS-Sandstone
Artifact Type Code: F01-Primary Flake, F02-Secondary Flake, F03-Tertiary Flake, F04-Unid. Flake, F05-Shatter, F06-Flake Blank, C01-Unidirectional Core, C02-Bidirectional Core, C03-Multidirectional Core, H02-Corner Notched Projectile Point, B01-Stage I Biface, B02-Stage II Biface, B03-Unident. Biface, T11-Steatite Bowl Frag., Z01-Fired Cracked Rock

***N/D-No Data

Figure 23
Site 9Tp366 Unit 2 East Profile



I - 10YR6/4 LIGHT YELLOWISH BROWN SAND, STREAKED W/ 10YR7/4 VERY PALE BROWN SAND W/ OCCASIONAL CLAY MOTTLES OF 10YR4/3 DARK BROWN
II - HOMOGENEOUS 10YR4/3 DARK BROWN SAND
III - 10YR4/3 DARK BROWN W/ NUMEROUS MOTTLES OF 10YR4/4 DARK YELLOWISH BROWN SAND WITH MANGANESE
IV - 10YR4/4 DARK YELLOWISH BROWN W/ NUMEROUS MOTTLES OF 10YR4/3 DARK BROWN AND OCCASIONAL MOTTLES OF 10YR6/4 LIGHT YELLOWISH BROWN SAND
V - 10YR4/4 SAND W/ OCCASIONAL MOTTLES OF 10YR6/6 BROWNISH YELLOW SAND TO RARE MOTTLES OF 10YR5/2 GRAYISH BROWN, ROOT CASTS
VI - 7.5YR4/6 DARK BROWN SAND W/ MOTTLES OF 10YR6/6 AND 10YR5/2, ROOT CASTS



the first time the mottling appears to be the result of long linear root casts and not randomly distributed pockets of different colored soils. These linear mottles were observed in the lower most soil horizon (Horizon VI) that consisted of a dark brown (7.5YR4/6) sand.

The artifacts recovered from Unit 2 are presented in Table 18. The uppermost horizon consisted of recent alluvium deposited by the lake and was therefore quickly removed without screening the fill. The next two excavation levels penetrated Soil Horizons II, III, IV, which represent disturbed deposits caused by activities associated with both the lake construction and previous agricultural use of the levee. Horizons II and III contained historic material and organic debris related to the clearing of the vegetation around the lake, while Horizon IV exhibited a soil matrix with frequent random mottles caused by the churning of the soils as a result of deep plowing. The artifactual material was evenly distributed throughout these horizons, although it is interesting to note that only check stamped and plain pottery came from these levels.

Unlike Excavation Unit 1 where the highest density of materials occurred near the present day ground surface, Excavation Unit 2 yielded the largest quantity of artifacts in levels 4 and 5; 40 to 60 centimeters below the surface. This depth corresponds with the top 20 centimeters of Soil Horizon V. The artifact collection from these levels included check stamped (N=20) and smoothed, fine tempered, plain pottery (N=34) and a large quantity of lithic material (N=82). The raw material profile of this collection exhibits an overwhelming predominance of chert (N=72; 90 percent), which appears to be a mixture of the dark gray ridge and valley cherts and the yellowish colored cherts found in the coastal plain region (Mistovich and Knight 1986: 84). Below 60 centimeters, only one half of the 2 by 2 meter unit was excavated to a depth of 82 centimeters. Within this lower-most excavation, a steatite bowl fragment was found at 67 centimeters and two small fiber tempered sherds came from excavation level 6; 60 to 72 centimeters below ground surface.

Block Strip Area

The final stage of the investigation of site 9Tp366 involved the stripping of a 10 by 10 meter block along the shoreline. The north west corner of the block unit was placed at grid location 540N/540E and included the area containing Feature 3, one of the largest rock clusters. The excavation in the block involved removing the recent alluvium deposited by the lake down to a dark clay horizon similar to the one noted in a small slot trench dug on the shoreline and in Excavation Unit 2. The clay horizon varied from 20 centimeters deep in the eastern-most portion of the unit to 4-5 centimeters deep in the northwestern quadrant of the unit. The clay horizon disappeared altogether in the northeastern quadrant. No cultural features or intact cultural deposits were noted in the strip area.

TABLE 18. Materials Recovered From Excavation Unit 2

Level	Soil Depth*	Horizon	Ceramics Quantity	Ceramics Sherd Form	Ceramics Surface Treatment	Lithics Quantity	Lithics Artifact Code**	Total Artifacts/Level
1	20cm	I	-	-	-	-	-	0
2	30cm	II&III	2	Dec. Body	Check Stamp	1	LHF03	
			1	Dec. Body	Eroded	1	LQF04	16
			9	Plain Body	Smoothed	2	LQF05	
3	40cm	IV	11	Plain Body	Smoothed	4	LHF03	
			1	Plain Rim	Smoothed	4	LQF03	20
4	50cm	V	5	Dec. Body	Check Stamp	1	LCF03	
			17	Plain Body	Smoothed	27	LHF03	
			1	Plain Rim	Smoothed	1	LQB02	
						1	LQF01	56
						1	LQF03	
						2	LQF05	
5	60cm	V	14	Dec. Body	Check Stamp	2	LHF01	
			1	Dec. Body	Eroded	44	LHF03	
			1	Dec. Rim	Check Stamp	1	LHF05	81
			2	Plain Rim	Smoothed	1	LMF04	
			14	Plain Body	Smoothed	1	LQF03	
6	72cm	V	2	Plain Body	Fiber Tempered	2	LHFO3	
						1	LQF02	6
						1	STT11	
7	82cm	V&VI				2	LQF03	2
Totals			Ceramics=81			Lithics=100		Grand Total=181

*Depth: Recorded Below Surface
**Artifact Code Combines Material Code (1st two digits) and Artifact Type (3rd through 5th digits)
Material Code: LQ-Quartz, LC-Quartz Crystal, LH-Chert, LM-Metavolcanic, LG-Granitic ST-Steatite, LS-Sandstone
Artifact Type Code: F01-Primary Flake, F02-Secondary Flake, F03-Tertiary Flake, F04-Unid. Flake, F05-Shatter, F06-Flake Blank, C01-Unidirectional Core, C02-Bidirectional Core, C03-Multidirectional Core, H02-Corner Notched Projectile Point, B01-Stage I Biface, B02-Stage II Biface, B03-Unident. Biface, T11-Steatite Bowl Frag., Z01-Fired Cracked Rock

Summary

The artifacts recovered from Sitc 9Tp366 raise interesting questions about archeological assemblages within the West Point Lake project area; particularly Middle Woodland assemblages. Little differences in the surface treatments exist between coastal and piedmont check stamped ceramics (Caldwell nd:168-170), although southeastern archeologists have traditionally differentiated between the two. The distinction between Deptford and Cartersville series pottery has fueled a debate among researchers as to the most appropriate way of classifying and interpreting check stamped ceramic assemblages throughout the southeastern United States (Fairbanks 1962, Smith 1971, Knight and Mistovich 1984, Anderson 1982). While some aspects of this discussion may seem irrelevant to the present study it emphasizes the typological difficulties that can arise in locations such as the fall line separating the piedmont and coastal plain regions and the river valleys that served as both major transportation routes and boundary locations for populations using various ceramic styles. It is in these areas that the greatest amount of sherd attribute variability is expected to occur, making the use of traditional sorting criteria more difficult.

Problems of using traditional typologies in regions exhibiting overlapping cultural boundaries or along major transportation routes is exemplified by the research conducted along the Savannah River in eastern Georgia. Anderson discussed the difficulties of distinguishing between the various stamped ceramics recovered at the Rucker's Bottom Site:

> Considerable variability over these finishes *(stamping)* was evident in the Rucker's Bottom ceramic assemblage, necessitating careful attention in sorting and analysis. As with the cord and fabric impressed wares, an immediate distinction could be made between well made and poorly made wares with these finishes; typically, well smoothed and/or carefully decorated ceramics tended to occur in the "Mississippian" portion of the site, while the less well executed wares occurred to the north and south in the "Archaic" and "Woodland" areas. This distinction was not, however, clear cut; considerable intergradation in stamp quality and/or degree of smoothing occurred, rendering sorting based on these criteria somewhat ambiguous (Anderson and Schuldenrein 1985:96; Italics added).

South of the West Point Lake, researchers working in the interior coastal plain of the Chattahoochee River Valley have also expressed doubts about the traditional use of the Deptford-Cartersville series designations (Schnell and Knight 1978, Knight and Mistovich 1984). In this region, archeological research has resulted in the development of two distinct cultural phases that are marked by differences in both pottery surface finishes and the co-occurrence of different sherd types. The Shorter phase is the earlier of the two phases and is dated to approximately 300 B. C. to A. D. 1. The material assemblage associated with this

phase is "Cartersville" Check Stamped, "Deptford" Bold Check Stamped and Cross Stamped, Dunlap Fabric Impressed (minority type), and plain wares exhibiting a micaceous paste (Knight and Mistovich 1984:218). Tetrapod bases on ceramics during this phase are large. The Mandeville phase immediately follows the Shorter phase and is dated from A. D. 1 to A. D. 300. The Mandeville assemblage is marked by the addition of Early Swift Creek Complicated Stamped and "Cartersville" Simple Stamped ceramics to the assemblage described for the Shorter phase . Other minority ceramic types that co-occur on Mandeville phase sites are Crooked River Complicated Stamped, St. Andrews Complicated Stamped, West Florida Cord Marked, Gulf Tradition types, and ceramics comprising the Santa Rosa and Crystal River Series (Knight and Mistovich 1984:219). Tetrapod bases on ceramics of this phase are small, and simple stamping may be indistinguishable from the Mossy Oak style of surface treatment.

Very little is known about the subsistence-settlement systems of the Shorter and Mandeville phase adaptations. Shorter phase sites in the Walter F. George Lake vicinity were classified as "small, probably seasonal stream-side sites showing a limited range of ceramic and lithic artifacts" (Knight and Mistovich 1984:218). With the exception of the Mandeville Site itself, most of the identifiable components of this phase are also described as small, probably seasonal levee and terrace occupations (Knight 1978:19-26; Knight and Mistovich 1984:219). The Mandeville Site, on the other hand, is a large mound complex that has been associated with Hopewellian connections that linked the Gulf Coast with cultural manifestations centered in the Ohio River Valley.

Similarities also exist between the Shorter and Mandeville cultural phases described above and those equated with contemporaneous piedmont groups. These similarities can be seen in both their chronological placement and the diagnostic materials comprising their respective assemblages. The date range for the coastal plain Shorter and Mandeville phases are very similar to the date ranges assigned to the piedmont Post-Kellog and Cartersville foci. Also, assemblages dominated by check stamped and fabric impressed ceramics (Shorter and Post-Kellog components) are differentiated from the later components (Mandeville and Cartersville assemblages) on the basis of the introduction of simple stamped wares and the overall reduction of check stamped and fabric impressed wares through time. The major difference between these cultural components is the presence of Gulf Coast ceramic types in the later Mandeville assemblage that are not found in the more northerly Cartersville expression. This difference is somewhat expected given the proximity of Mandeville sites to the Gulf coast and their location along the Chattahoochee River, which no doubt served as a transportation route for groups occupying both the coast and the interior coastal plain.

Piedmont Woodland adaptations are only slightly better understood. Excavations conducted on Kellog and Post-Kellog components have identified small to medium sized circular houses, and numerous storage features used to store acorns, hickory nuts, and walnuts have been found (Caldwell 1958:25).

Basically, subsistence-settlement systems of late Early Woodland piedmont groups did not drastically change from the preceding Late Archaic period. There is an increasing body of evidence for the southeastern United States suggesting that Woodland and even later Mississippian period economies relied less on agricultural products than originally assumed (Ford 1985). To date, no real evidence for agricultural production has been presented for the late Early Woodland period. However, a semi-sedentary adaptation, which an agricultural based economy would require, is well established during the Early Woodland period (Caldwell 1958, Wauchope 1966, Blanton 1986). It is most probable that the Early Woodland inhabitants of north Georgia retained a hunting and gathering economy but experimented with native wild foods (grasses and seeds) and with various horticultural plant species.

Middle Woodland Cartersville components are seen also as a continuation of the hunting and gathering economy, however a shift away from the use of storage facilities suggests that nuts were no longer a food staple during this period (Caldwell 1958:46). The presence of large village sites along major rivers and streams suggests an increasing reliance on horticultural products. In the Allatoona Lake area, Middle Woodland sites were discovered in both upland and floodplain settings, and it was during this period that mortuary practices began to significantly change with cremated and non-cremated burials being placed in earthen and stone mounds (Jeffries 1976). Excavations of Middle Woodland structural remains indicate the persistence of circular house forms, some of which had depressed living floors (Kelly and Meier 1970). Central hearths within the structures were a common occurrence, but their construction varied from well prepared stone lined pits to "simple masses of fire cracked rocks" (Garrow 1975:22) placed on an unprepared ground surface.

In summary, the various Woodland cultural manifestations that occupied both the piedmont and interior coastal plain provinces appear to have much in common. With the exception of some minority wares, the diagnostic assemblage of the various phases are almost identical. Also, the settlement-subsistence data suggest a continuation of the hunting and gathering adaptation for both these regions. Unfortunately, detailed information on the types and quantities of foods that were procured are lacking for the lower piedmont/fall line area as well as for the interior coastal plain. In this respect, sites located in the West Point Lake area offer the unique opportunity for the recovery of such data. It is also ideally situated for future studies focusing on the interaction between the more northerly piedmont populations and the southern groups living in the interior coastal plain.

In Chapter VII site significance and recommendations pertaining to Site 9Tp366 are discussed on pages 221 and 232, respectively.

Site 9Tp62

Site 9Tp62 is located on a broad, nearly level, terrace that is dissected by small stream channels both to the north and south of the site area. The terrace is at an elevation of about 192 meters NGVD and is completely inundated during

most of the year. During the 1989 field season, approximately 2.1 hectares (5.3 acres) of this site were exposed by the lake draw-down and subject to investigation (Figure 24).

The University of Georgia recorded this site as a light scatter of cultural materials concentrated on the lake side of the terrace with a very dense concentration occurring near the confluence of a small intermittent stream and the river that forms the southern site boundary. Materials collected during the original survey included incised, corncob impressed, punctated, and plain grit tempered sherds, broken and whole bifaces, flake tools, debitage and fire cracked rock (Rudolph 1979). Identifiable cultural components recognized from the analysis of diagnostic artifacts included both the Woodland and Late Mississippian Periods.

The 1989 Investigation

Archeological testing of Site 9Tp62 began on February 20 and concluded on February 28, 1989. As per the scope of work, the principal means of testing this site included a controlled surface collection of the eastern and southern shorelines and systematic shovel testing of the area above the shoreline where poor ground surface visibility occurred. Pending the results of the surface collection and shovel testing procedures, a 10 by 10 meter strip block was to be excavated whereby the recent alluvium and plow-zone would be removed for the inspection of cultural features. The rational and field techniques employed at Site 9Tp62 are the same as those discussed for Site 9Tp366.

Surface Collections at Site 9Tp62

The surface collection units yielded a total of 5,188 artifacts: 4,310 ceramic artifacts and 878 pieces of lithic debitage, tools, and tool fragments. These artifacts were distributed mostly along the eastern shoreline and extended 200 meters north of the southern boundary of the site; the point where the river and the small tributary join. From the confluence of these two drainages, the small stream runs in a northwesterly direction across the exposed terrace. The surface collection conducted along this shoreline yielded artifactual materials for a distance of 100 meters from the confluence. The area of highest artifact density was south of grid-line 490N along both the river and tributary shorelines (Figure 25). A second smaller artifact concentration occurred along the river shoreline north of the larger concentration between grid-lines 510N and 550N. This second concentration was clearly separated from the southern-most artifact scatter by a zone (approximately 20 meters in width) where relatively few artifacts occurred. North of grid-line 570N, the artifact density in the surface collection units quickly diminished.

The surface collection procedure yielded 4,308 pottery sherds and two ceramic pipe fragments. Laboratory analysis of the surface treatments revealed that the overwhelming majority of these sherds were plain smoothed ceramics

Figure 24
Site 9Tp62 Elevations

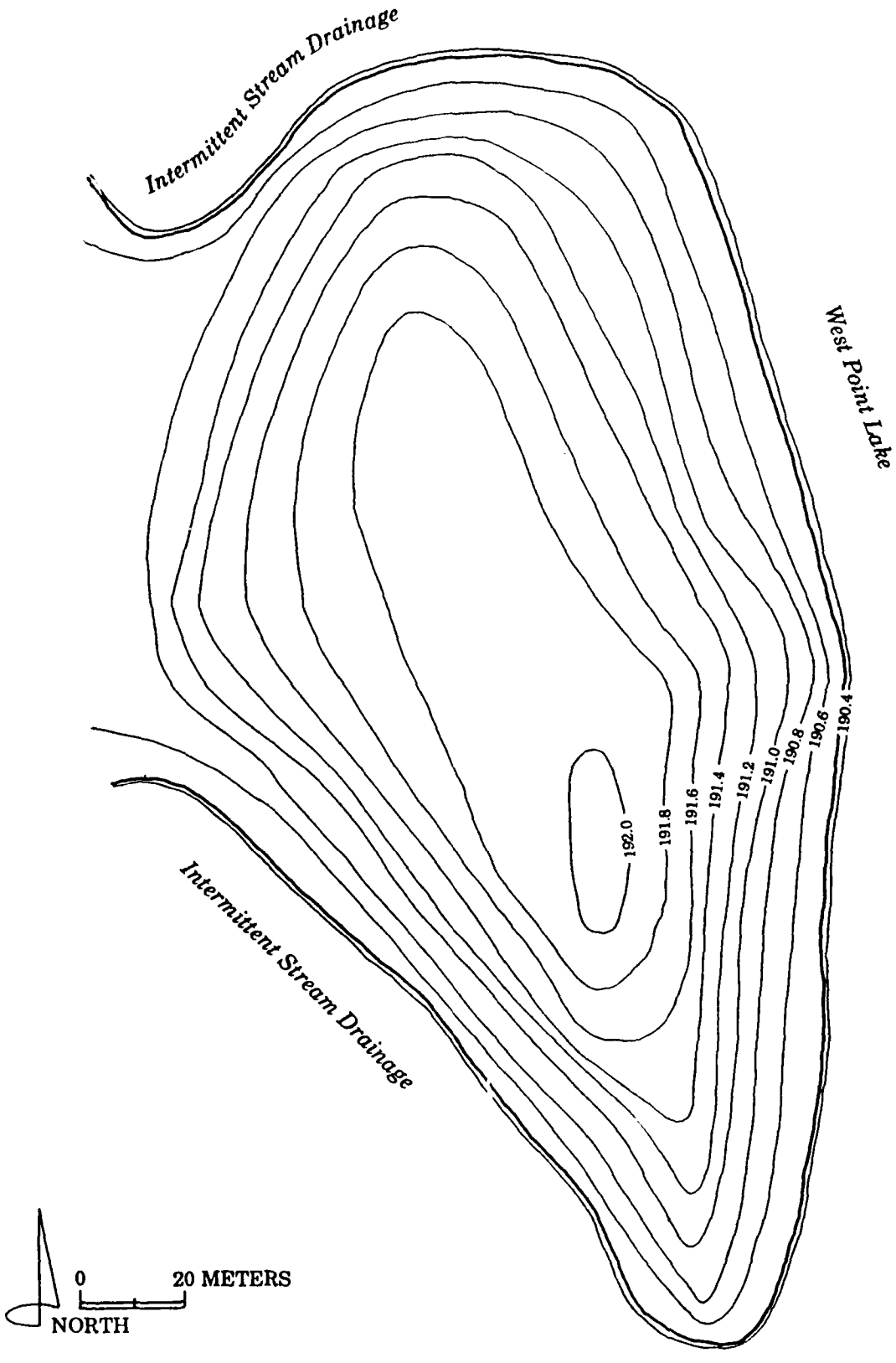
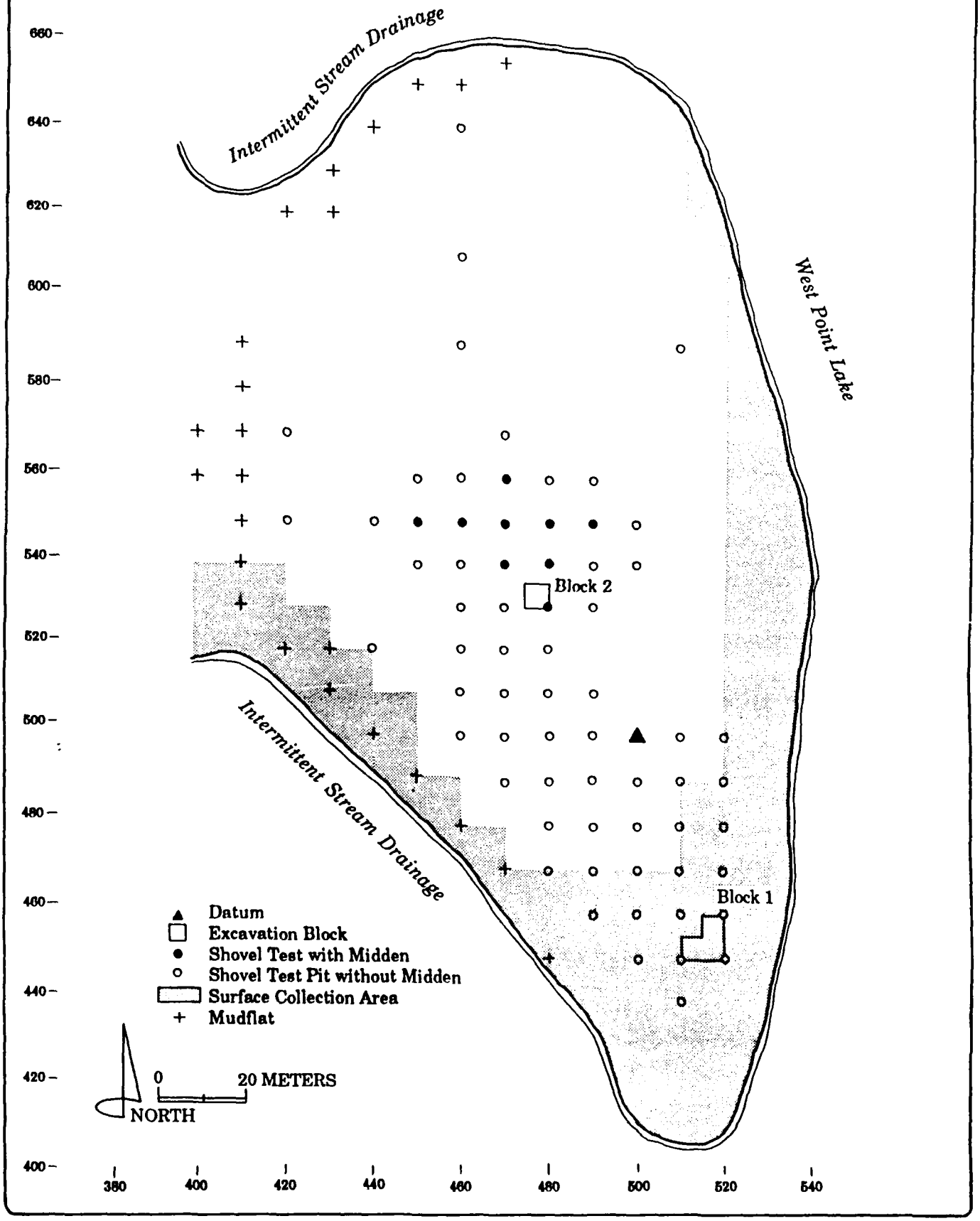


Figure 25
Site 9Tp62 Investigations



with little or no burnishing exhibited in the collection (Table 19). Excluding the plain ceramics, the principal means of decoration was incising (Figures 6, 7, and 8) followed by finger pinching (Figure 10f, h), incision and punctations, and simple punctations (Figure 9c). Relatively few other surface treatments including complicated stamped designs were recovered during the 1989 field investigations.

TABLE 19. Site 9Tp62 Ceramics Recovered By Controlled Surface Collection

	CERAMIC FORM							
SURFACE TREATMENT	Rim	Body	Base	Handles	Disk	Shoulder	Totals	%
Applique/Filletted		7					7	0.2
Bold Incised	50	171		3		3	227	5.3
Medium Incised	8	17					25	0.6
Fine Incised		2					2	0.0
Punctate/Incised	3	11					14	0.3
Punctate		4					4	0.1
Finger Pinched	26						26	0.6
Brushed		3					3	0.1
Plain	162	3728		8		1	3899	90.5
Complicated Stamped	3	16				4	23	0.5
Checked Stamped		1					1	0.0
Simple Stamped		1					1	0.0
Cord Marked		1					1	0.0
Unmodified	8						8	0.2
Eroded	13	45				2	60	1.4
Pipe Frags.						2	2	0.0
Unidentified	3	3		1			7	0.2
Totals	276	4010		12		12	4310	100.0

The presence of incised decorations, the added design element of punctations, and the paucity of stamped finishes argues for a Late Lamar occupation of the site. However, several important differences are seen in the present collection from other documented Late Lamar assemblages. The proportion of plain ceramics in the Site 9Tp62 collection far exceeds the proportions given for any other previously recorded Late Lamar Phase in Georgia (see Halley and Rudolph 1986:68) In fact, the closest any Mississippian Phase assemblage comes to matching the plain sherd collection at Site 9Tp62 is the Early Lamar Duvall Phase in the Oconee River Valley (Williams 1983:208; Hally and Rudolph 1986:67). Also, one rim sherd collected from Site 9Tp62 exhibited fine incised lines placed vertically on the upper section of the rim just below the lip. Although this sherd was very small, it does exhibit a similar type of decoration found on Duvall Phase components (Smith 1981).

Another relevant attribute for determining the temporal sequence of sherd collections is the width of incised lines. During the present analysis, incised sherds were divided into three categories based on the width of the incised lines

following Williams (1983:211) definitions of fine (less than 1 mm), medium (between 1 and 2 mm), and bold (greater than 2 mm) incisions. Laboratory analyses of Late Mississippian ceramic collections indicate that fine, medium, and bold incising varied between different cultural phases and "the proportion of wide lines decreased and the proportion of thin lines increased through time" (Williams 1983:216). At the Joe Bell Site (9Mg28), incised ceramics for the earlier Duvall Phase component (ca. A. D. 1375 to 1475) exhibited 9.3 percent fine incising, 71.0 percent medium incising, and 19.7 percent bold incising. In contrast, the later Bell Phase component (ca. A. D. 1600 to 1675) exhibited 21.9 percent fine incising, 69.4 medium incising, and 8.7 percent bold incising. It would appear from these descriptions of Oconee Valley assemblages that either the Site 9Tp62 collection is extremely early or the proportional equation for determining cultural sequences for the Middle Chattahoochee River Valley is inappropriate. At Site 9Tp62, the incised sherd collection is represented by 0.8 percent fine incised, 9.8 percent medium incised, and 89.4 percent bold incised ceramics.

The last technique for investigating the cultural sequence of the Site 9Tp62 collection was an analysis of the folded rim widths. Previous research on Mississippian period ceramic assemblages indicates that thickened jar rims become wider through time (Hally and Rudolph 1986:63). A seriation of folded and applique rims recovered from well-dated cultural deposits yielded three categories of fold widths. These three categories are described by Rudolph (1983:91) and include: 1) rims recovered from the upper levels of Dyar Mound (9Ge5) exhibiting a mean fold width of 19.1 mm; 2) rims recovered from the lower levels of Dyar Mound exhibiting a mean fold width of 13.6 mm; and 3) rims recovered from cultural deposits (dated to A. D. 1420 MASCA corrected) at Site 9Pm222 exhibiting a mean fold width of 10.9 mm. A subsequent analysis of fold widths recovered from both Stratum 3 of the Dyar Site and the Dyar Phase Carrol Site (9Pm85) resulted in a mean fold width of 18.4 mm and 21.1 mm, respectively (Kowalewski and Williams 1989:60). Based on the ceramic stylistic evidence, the Carroll Site was assigned an occupation date between A. D. 1520 to 1580.

The analysis employed on the folded and appliqued rims identified in the Site 9Tp62 collection proceeded in several stages. The simple folded rims (N=15) posed no analytical problems and followed the traditionally method of measuring the distance from the rim lip to the bottom of the fold. The sherds with applique strips (N=12) however, were a problem primarily because the technique for measuring the fold width was not well described (Rudolph 1983). Initially, two sets of measurements were taken on the rim sherds collected at 9Tp62. These measurements included the distance from the rim lip to the top of the rim strip and the width of the rim strip itself. These two measurements were later combined to form one measurement representing the width of the thickened rim between the rim lip and the bottom of the rim strip. The individual fold width measurements for the two rim types are presented in Table 20. The distributional characteristics of these data indicate that appliqued rim fold widths were consistently larger than the simple folded rims and that the inclusion of the appliqued rim data into the sample raised the overall mean fold width from 15.26

to 16.63 mm for the site. Future work attempting to develop a chronology using average fold width measurements should investigate the contribution of appliqued rims to the samples and explicitly state these data in the reports. Ideally, such studies focusing on ceramic assemblages from well-dated or intact cultural components will provide quantifiable data on fold width attributes so that future investigations can fully utilize these data. For comparative purposes, the present analysis will assume that the combined mean fold width of 16.63 mm accurately reflects the ceramic collection for Site 9Tp62 and that this statistic is comparable with previously reported mean fold widths for other Mississippian sites in Georgia.

TABLE 20. Folded and Appliqued Rim Measurements in Millimeters

Simple Folded Rims	Appliqued Rims		
Rim Widths	Applique Distance	Applique Width	Total Distance
8	3	15	18
13	5	9	14
14	11	7	18
14	4	15	19
14	18	10	28
15	4	15	19
15	7	9	16
15	10	11	21
16	8	8	16
16	8	11	19
16	7	11	18
17	8	6	14
18			
19			
19			

Simple Folded Rims	Appliqued Rims	Combined Width
N=15	N=12	N=27
Mean=15.26	Mean=18.33	Mean=16.63
St. Deviation=2.7	St. Deviation=3.7	St. Deviation=3.49
Variance=7.36	Variance=13.69	Variance=12.17

The mean fold width of 16.63 for Site 9Tp62 is much larger than the average fold width of Site 9Pm222, but falls between the mean fold widths assigned to both Stratum 3 and the lower-most levels of Dyar Mound. Also, the fold width mean for Site 9Tp62 is much smaller than the mean fold width reported for the late Dyar Phase Carroll Site. Comparing these data with the 9Tp62 rim fold mean, suggests an occupation contemporaneous with the Dyar Phase of the Oconee Valley or the Barnett Phase of North Georgia, probably postdating A.D. 1500. Before accepting this provisional date however, several important factors need further consideration. First, the problem of multiple componency (see spatial analysis section below) and its affects on calculating a site mean fold width is not addressed. Second, archeological assemblages dating to the Late Mississippian

period in the central Chattahoochee Valley are not well defined, making it difficult to compare folded rim attributes with other chronologically sensitive assemblage traits. For example, the collection made at Site 9Tp62 is significantly different from contemporaneous Late Mississippian assemblages described for the Oconee and Ocmulgee River drainages to the east and the Etowah and Coosa River drainages to the north (see Hally and Rudolph 1986:68). Also, within the West Point Lake project area itself, a tentative date range for the occupations at the Park and Avery Mounds overlap or are very close to the date purposed for 9Tp62; yet the ceramic assemblages recovered from these two sites reflect very different proportions of incising and stamping than the Site 9Tp62 collection (see Chapter VI). At the present time it is not known if these differences are attributed to functional variability between site types (mound centers vs non-mound village sites) or stylistic changes through time.

A total of 878 lithic artifacts were recovered by the controlled surface collection of Site 9Tp62; the overwhelming majority of which were manufactured from quartz (Table 21). The scarcity of primary and secondary flakes and the low incidence of cores indicates that the initial process of core reduction occurred at other locations and that bifaces were brought to the site for tool production. The relative large number of Stage I and II bifaces recovered by the surface collection suggest that these were the tool types selected for transporting to this floodplain location. This tool form is well suited for transporting given its size and multi-functional capabilities. Besides the general biface category, only two drill fragments, a Middle Archaic Morrow Mountain projectile point, a Early Archaic Pine Tree projectile point, and five unidentifiable projectile point fragments were recovered during the surface collection.

TABLE 21. Lithics Recovered from Surface Collections at Site 9Tp62

	Raw Material					
	Quartz	Quartz Crystal	Chert	Metavolcanics	Steatite	TOTALS
Debitage						
Primary	1					1
Secondary	2		5			7
Tertiary	313	55	33	3		404
Unidentified	163	16		1		180
Flake Blank	28	1				29
Shatter	153	19				172
Cores	2	8	1			11
Projectile Points	1		1			2
PPt Frags.	3	1	1			5
Bifaces						
Stage I	34	11				45
Stage II	17	1				18
Unid. Biface						
Drill	2					2
Unifacial Tools						
Unidentified					2	2
Totals	719	112	41	4	2	878
Percents	81.9	12.8	4.7	0.5	0.1	100.0%

The identification of an Early Archaic period occupation of Site 9Tp62 is based on the recovery of a single artifact specimen: a Pine Tree projectile point. In the southeastern United States, information concerning the cultural sequence of this point type is sparse, with most of the known specimens coming from surface collections from northern Alabama, southern Tennessee, and western North Carolina (Cambron and Hulse 1975:104). At the Saint Albans Site in West Virginia, excavations recovered Charleston Corner Notched points, very similar to the Pine Tree type, in cultural horizons below the Early Archaic Kirk Horizon. Based on this stratigraphic information, it has been suggested that the southeastern Pine Tree point type represents an early variant of the better known Kirk point tradition (Walthall 1980:52).

Like the Early Archaic occupation of Site 9Tp62, the identification of the Middle Archaic occupation rests on the discovery of a single specimen: a Morrow Mountain projectile point. This point type is widely distributed throughout the southeastern United States and is found on a variety of site types ranging from open air sites along the coastal plain to rockshelter and cave sites in the Ridge and Valley Province. At Russell Cave, flexed burials associated with the Middle Archaic period, yielded carbon dates of 4300 ± 190 B. C. and 4310 ± 190 B. C., which corresponds well with the date of the Middle Archaic component found at the Doerschuk Site in North Carolina (Coe 1964).

Spatial Analysis of Surface Collection Materials

Since most of the materials discovered at Site 9Tp62 can be identified as belonging to the Late Mississippian period, the principal goal of the spatial analysis was an assessment of the number of components present at the site. To accomplish this task the ceramic attribute fold width was selected because the other chronologically sensitive attributes (ie. proportions of incising to stamping and proportions of various types of incising) significantly vary from drainage to drainage and are therefore inappropriate for such analysis. The technique of folding rims however, is a widespread phenomenon that occurs in archeological assemblages throughout the southeast and southwest United States. As far as Arizona, investigators working with folded rim assemblages have observed a tendency for increasing fold widths through time (John S. Cable personal communication 1990). The widespread distribution of the folded rim technology and the apparent trend for increasing fold width through time makes folded rims one of the better quantifiable attributes for identifying occupations at a site.

The first step in the analysis was an examination of the rim fold frequency distributions shape. Basically, this argument follows the simple logic that if the site was occupied by a single group of people for a relatively short period of time, then the frequency distribution of rim fold widths should approach the shape of a standard normal curve, where 68.26 percent of the rim fold widths should occur within one standard deviation of the sample mean. Conversely, if the site was occupied by multiple groups widely separated in time, then the frequency distribution of rim fold widths should exhibit multiple peaks representing the

different occupations. While this basic argument will be accepted for the present, it should be noted that previous research has failed to consider the affects of long term occupation of a single site, multiple componency, or component clustering (Simpkins and Petherick 1986:20-25) will have on the calculation of a single site mean fold width statistic.

Figure 26 shows the frequency distribution of rim fold widths recovered at Site 9Tp62. While this distribution conforms to the definition of a standard normal curve, its overall appearance hints at a possible bi- or trimodal shape with peaks occurring at fold widths 14, 16, and 19 mm. Differences in fold widths measurements of this magnitude can reflect a relatively long time span (as much as 125 years) and may reflect the repeated occupation of the site by different groups. To further examine this hypothesis, the individual rim fold widths were plotted on the base map by their grid coordinates to check for spatial clustering. Along the river shoreline, the surface collection units yielded the full range of rim fold widths, suggesting the presence of a single long term occupation or the spatial congruence of several different occupations. Along the southern tributary shoreline however, a different pattern of rim fold widths occurred. At this location, the sherd cluster consisted of a majority of sherds (N=6; 75 percent) exhibiting fold widths equal to or greater than 18 mm and a minority of the sherds (N=2; 25 percent) exhibiting fold widths equal to or less than 16 mm. The Man-Whitney U statistical test for small samples was chosen to test the hypothesis that the tributary shoreline sherd cluster is larger (ie. larger rim widths) than the sherd cluster located along the river shoreline. Since it is assumed that the larger rim widths represent a later time period and not an earlier period, a one tailed test of significance was employed. This test resulted in a U score of 31.5 which is significant at the 0.01 probability level for a one-tailed test. This implies two alternative interpretations of the data: either the site was occupied on two different occasions or there was one long continuous occupation of the site in which the site boundaries expanded along the small tributary during the latter half of the occupation.

Shovel Tests at Site 9Tp62

The shovel test operation at Site 9Tp62 included 68 units that covered the grassy terrace (too grassy to permit surface collection) from the top of the river shoreline to the mud-flats and the small drainage forming both the western and northern boundaries of the site (Figure 25). The majority of the shovel test units were placed south of grid-line 570N where large quantities of materials appeared along the adjacent shorelines. North of grid-line 570N, the investigation included shovel test units excavated along grid-line 460E to define the northern extent of the artifact scatter within the interior of the site. Of the 68 shovel test units placed at the site, 61 yielded ceramic and/or lithic material including the units located at the extreme western and northern peripheries of the terrace (Table 22). These data indicate that the artifact scatter covers the length of the terrace between the two small drainages and the mud-flats to the west. The greatest density of materials were recovered in the units near the confluence of the tributary and the

Figure 26
Frequency Distribution of Rim Fold Widths at 9Tp62

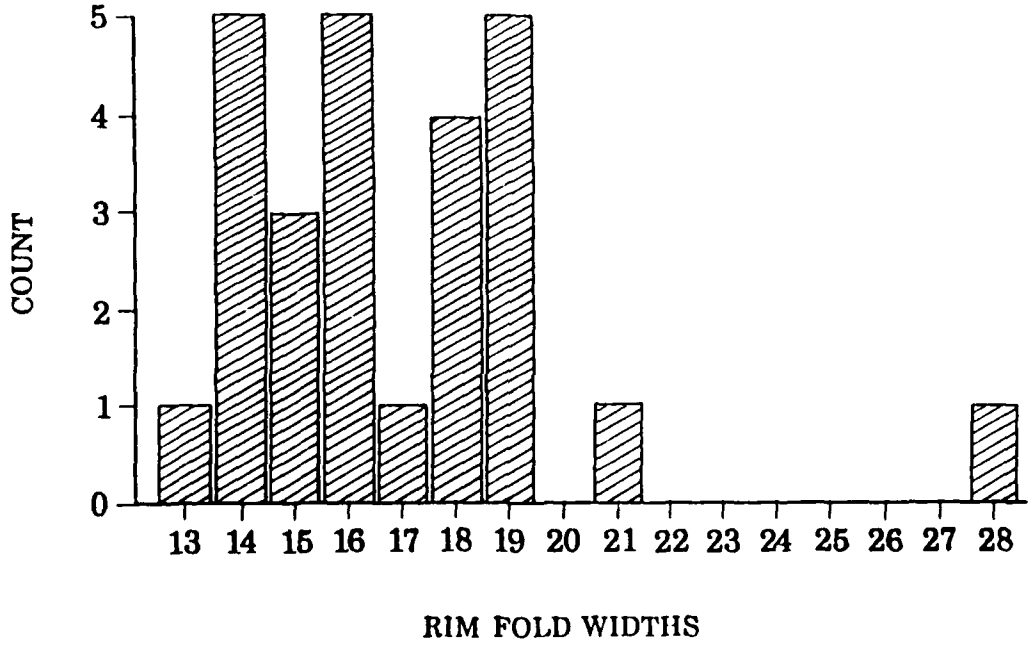


TABLE 22. Artifacts Recovered From Shovel Test Units at Site 9Tp62

Shovel Test		Ceramics				Lithics		
Northing	Easting	Plain	Incised	Comp. St.	Other Cer.	Debitage	Biface Frags	FCR
440	510	5				1		
450	500	18						
450	510	12				1		5
450	520	7	1			5	1	1
460	490	5				3		
460	500	11	1			2		
460	510	7				5		
460	520	4	1			2		
470	480	5						
470	490	3	1			1		
470	500	5						
470	510	1				2		
470	520	3		1		1	1	
480	490	5						
480	500					1		
480	510	2						
490	470	4				1		
490	480	1				1		
490	490	2				1		
490	520					2		
500	460	6						
500	470	1	1					
500	490					1		
500	500					1		
500	520						1	
510	460	4					1	
510	470	3				1		1
510	480	4						
520	440	2						
520	460	2	1					
520	470	2				2		
520	480	4						
530	460	4			1	1		
530	470	17	1			2		
530	490	1						
540	450	4						
540	460	5	1			2		
540	470	21			1	3		
540	480	13				4		
540	490	4				1		
540	500	2						
550	420					1	1	
550	440	1	1			2		
550	450	11				1		
550	460	9				1		
550	470	18				4		

TABLE 22 (continued). Artifacts Recovered From Shovel Test Units at Site 9Tp62

Shovel Test		Ceramics				Lithics		
Northing	Easting	Plain	Incised	Comp. St.	Other Cer.	Debitage	Biface Frags	FCR
550	480	5						1
550	490	17	1		1		2	
550	500	10						
560	450	2						
560	460	5	2			1		
560	470	8				3		
560	480	2				2	1	
560	490	4	1					
570	470	4						
590	460	3				3		
610	460	2						
640	460	1				1		
Totals		301	13	1	3	66	8	8

river at the south side of the site and along grid-lines 530N, 540N, 550N and 560N in the interior of the site.

The general soil profile exhibited in the shovel test units was a thin deposit of light yellowish brown (10YR6/4) alluvial sand covering a 10 to 15 centimeter thick deposit of dark grayish brown (10YR4/2) clayey sand. This latter deposit was the old plow zone that had been covered by recent sediments from the lake. Below the plow zone was a yellowish red (5YR4/6) clay subsoil. The depth of the subsoil varied from the shoreline to the interior of the site. Along the shoreline the subsoil was very shallow and never exceeded a depth of 10 centimeters, while the interior of the site exhibited thicker plow zone deposit and a subsoil depth of 25 to 30 cm. It was in this latter region that several of the shovel test unit profiles exhibited an additional soil horizon located between the bottom of the plow zone and the red clay subsoil.

The soil profile in the shovel test units located between grid-lines 530N-560N and 450E-490E consisted of the usual alluvial and the dark grayish brown plow zone deposit in addition to a very dark grayish brown (10YR3/2) sand layer that rested on top of the red clay subsoil. This newly discovered horizon contained numerous artifacts and charcoal flecks and from its very dark appearance is believed to be organic in origin. This organic or midden zone has been disturbed by plowing, but retains enough integrity to be clearly visible in the shovel test profiles. While attempting to define the aerial extent of this deposit, one shovel test unit (530N/480E) exhibited an unusually deep profile. At 33 centimeters below ground surface, a feature edge was seen in the bottom of the shovel test unit, with red clay subsoil occurring in the west half and a dark midden stain occurring in the east half of the unit. After defining the boundary of the feature, the excavation was terminated and additional shovel test units were placed in the vicinity to identify additional features and map the horizontal extent of the midden deposit.

While the results of these tests failed to discover additional feature locations (not unexpected given the 10 meter sampling frame) it did reveal that the midden extended over a 40 by 40 meter area (Figure 25).

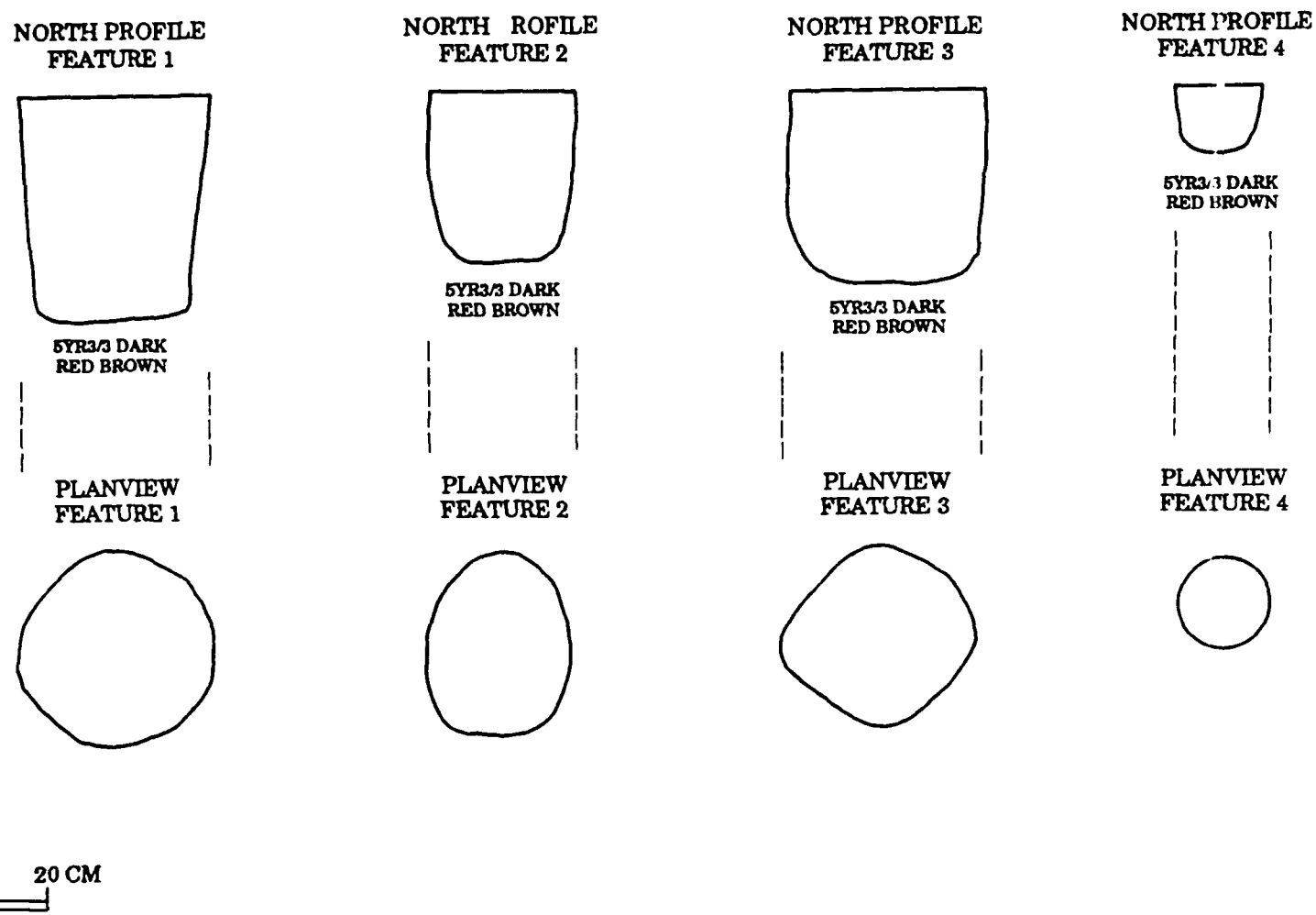
The artifactual material recovered in the vicinity of the dark organic stain indicates a possible Late Mississippian origin for the midden. Several of the ceramics exhibited bold incised surface finishes, but the more convincing evidence came from the large number of plain ceramics. A reanalysis of these ceramics revealed that the overwhelming majority of the sherds exhibited a very distinctive color represented by a light gray (10YR7/1) hue on both the exterior and interior surfaces. This same hue was found exclusively on identifiable Late Mississippian decorated ceramics recovered during the surface collection. Very few ceramics with hues other than the light gray were found in the vicinity of the midden deposit. These ceramics included a check stamped and several plain body sherds.

Block Stripping

The final stage of the investigation of site 9Tp62 involved the removal of the recent alluvium and plow zone deposits from two small block areas. The placement of these blocks corresponded to the surface collection units yielding high artifact densities and the shovel test unit where the feature and midden horizon were observed. Block 1, located along top of the shoreline cut between grid coordinates 450N/510E and 450N/520E, covered an area of 75 square meters above the beach, which yielded the highest artifact counts. This block area exhibited level ground and shallow overburden deposits. The depth of the subsoil varied within the block and ranged from 3 to 5 centimeters in the east to 10 centimeters in the central and western portions of the unit. The removal of the Block 1 overburden revealed 18 small stains, of which four exhibited straight sides and flat bottoms characteristic of postholes (Figure 27). The four cultural features found in Block 1 were assigned feature numbers 1 through 4. No pattern suggesting a structural alignment of these posts was observed within the unit.

Block 2, located within the midden area at grid coordinate 530N/480E, covered an area totalling 25 square meters or approximately 2 percent of the area exhibiting the midden. The depth of subsoil in this block was much deeper than in Block 1 and involved the removal of the recent alluvium, plow zone, and the midden horizon. After removing the midden horizon, a large circular dark stain extending into the eastern wall of the unit appeared in the red clay subsoil. While cleaning off the top of this stain, several check stamped sherds were recovered and the presence of a disturbed small hearth near the edge of the larger stain was noted. The large circular stain was assigned feature number 5 and the small hearth feature number 6. These two features, in addition to the four cultural features discovered in Block 1, are described below.

Figure 27
Site 9Tp62 Block 1 Features



Feature 1

Feature 1 was a small circular stain approximately 22 cm in diameter and 28 cm deep. The stain was well defined and exhibited straight walls and a flat bottom. The fill consisted of a dark red brown (5YR3/3) silty sand that contained charcoal flecks and small mottles of yellowish red (5YR4/6) clay. At the bottom of the feature, a thin lense of brownish yellow (10YR6/8) clay was encountered. Artifacts recovered from the south half of the feature included one plain coarse tempered body sherd with a smoothed exterior surface. The northern half of the feature was saved for future flotation analysis.

Feature 2

Feature 2 was a small circular stain approximately 20 cm in diameter and 18 cm deep. The stain was well defined and exhibited straight walls and a flat bottom. The fill consisted of a dark red brown (5YR3/3) silty sand that contained small mottles of yellowish red (5YR4/6) clay. No artifacts were recovered from the south half of the feature. The northern half of the feature was saved for future flotation analysis.

Feature 3

Feature 3 was a small oval shaped stain approximately 20 cm in diameter and 22 cm deep. The stain was well defined and exhibited straight walls and a flat bottom. The fill consisted of a dark red brown (5YR3/3) silty sand that contained small mottles of yellowish red (5YR4/6) clay. At the bottom of the feature, a thin lense of brownish yellow (10YR6/8) clay was encountered. No artifacts were recovered from the south half of the feature. The northern half of the feature was saved for future flotation analysis.

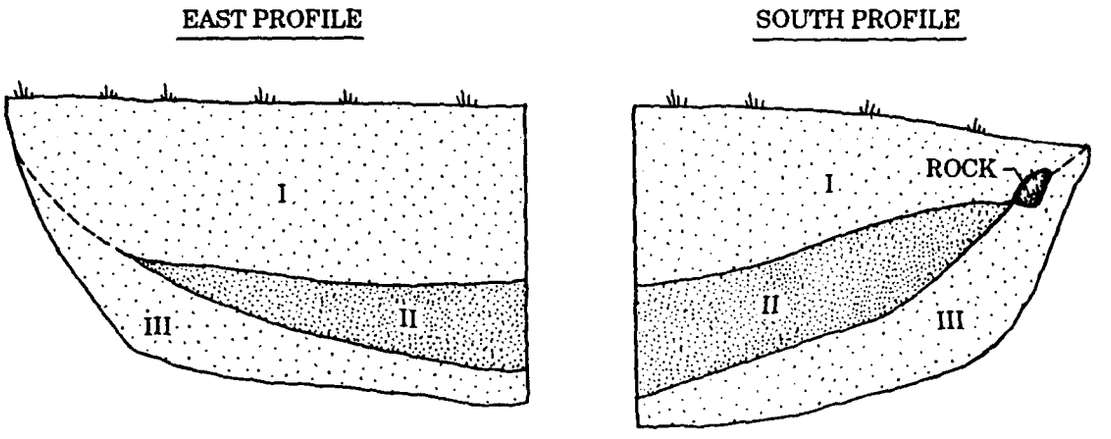
Feature 4

Feature 4 was a small circular stain approximately 10 cm in diameter and 8 cm deep. The stain exhibited straight walls and a flat bottom. The fill consisted of a dark red brown (5YR3/3) silty sand. No artifacts were recovered from the south half of the feature. The northern half of the feature was saved for future flotation analysis.

Feature 5

Feature 5 was a large circular pit approximately 170 cm in diameter and 55 cm deep. Due to its size, only the northwest quadrant of this feature was excavated This excavation revealed three separate fill zones consisting of an upper-most dark grayish brown (10YR4/2) clayey sand overlaying a dark brown (7.5YR3/2) clayey sand, which was above another zone of dark grayish brown (10YR4/2) clayey sand (Figure 28). The top soil stratum contained a dense concentration of artifacts, including 72 plain body sherds, 19 check stamped sherds, four basal leg supports, four rim sherds, fired clay balls, quartz crystal

Figure 28
Site 9Tp62 Feature 5 Profiles and Plan View

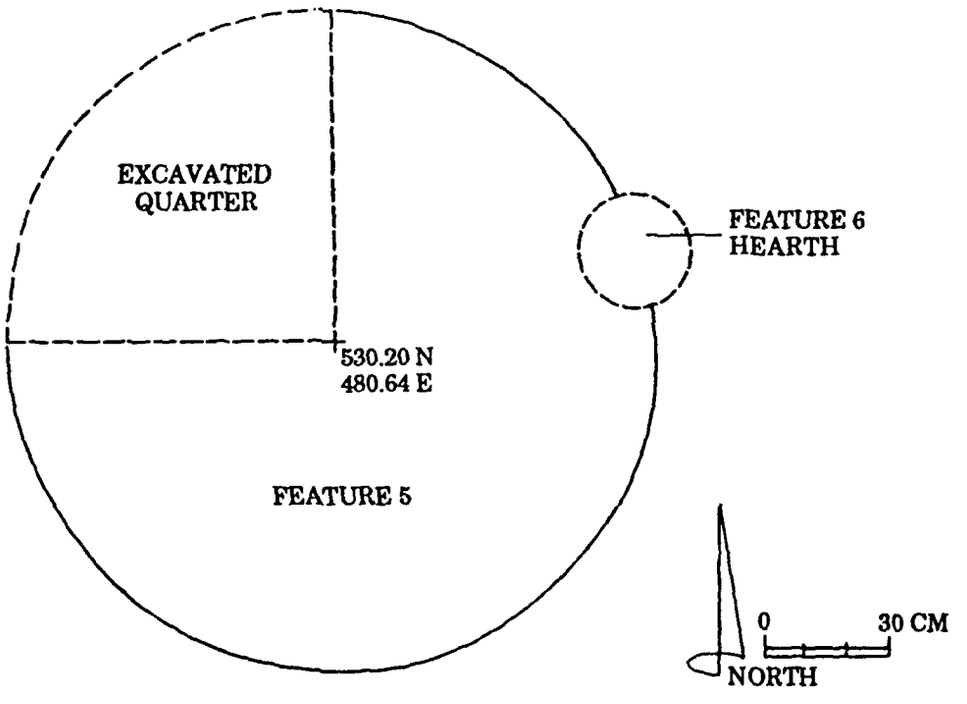


I - 10YR4/2 DARK GRAYISH BROWN CLAYEY SAND
W/ HIGH DENSITY OF ARTIFACTS

II - 7.5YR3/2 DARK BROWN CLAYEY SAND

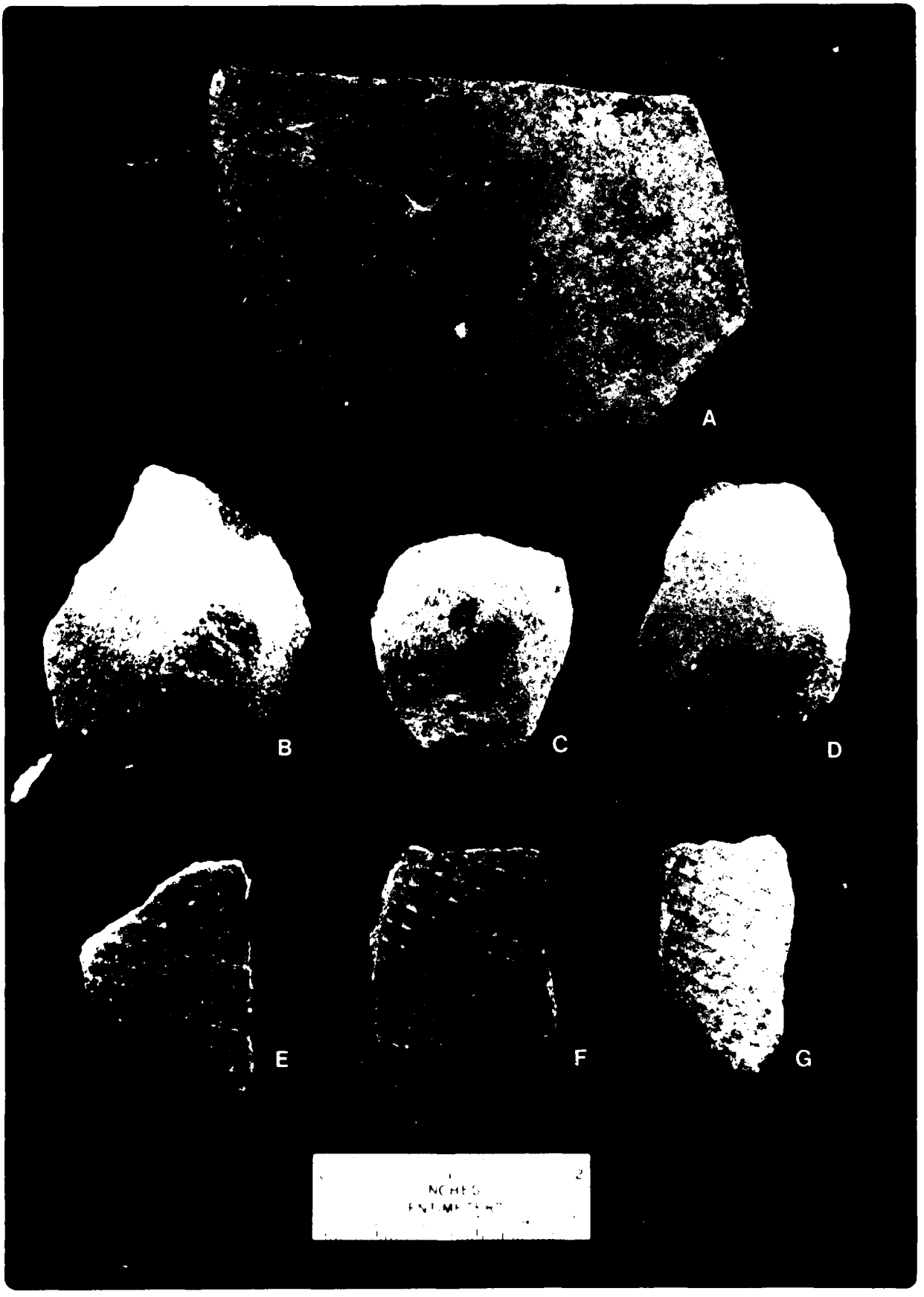
III - 10YR4/2 DARK GRAYISH BROWN CLAYEY SAND
W/LOW DENSITY OF ARTIFACTS

0 20 CM



Site 9Tp62 (A-G). Simple Stamped (A); Tetrapod Base Supports (B-D); Check Stamped (E-G).

Figure 29
Site 9Tp62 Feature 5



and chert debitage, a Stage II biface fragment, a broken projectile point tip, 0.5 grams of small mica sheets, and 36 pieces (1.24 kilograms) of fire cracked rock (Figure 29). The middle soil stratum contained fewer artifacts, including eight plain body sherds, one brushed body sherd, three check stamped, fired clay, quartz crystal debitage, a quartz core, a large mica sheet (10 by 10 cm in size) weighing 96.39 grams, and 1.85 kilograms of fire cracked rock. The third or bottom soil stratum contained several plain body sherds and unmodified rocks. A charcoal sample taken from the upper-most soil stratum submitted for radiocarbon analysis yielded a corrected calender date of A. D. 80 (1,890 ± 70 BP, Beta-33577). An analysis of the flotation samples taken from this feature is presented below.

Feature 6

Feature 6 was a small circular concentration of burned clay fragments about 30 cm wide and 15 cm deep. The feature intruded into the eastern portion of Feature 5 (Figure 28) and exhibited no clear boundaries or bottom. This feature was obviously disturbed by plowing activities as evidenced by its fragmented condition. No artifacts were associated with this feature and no flotations samples were taken.

Analysis of 9Tp62 Macroplant Remains

This section has three objectives: (1) to evaluate the extent and quality of macroplant preservation at 9Tp62; (2) to document the plant resource structure available at the site in order to gain a better perspective on Middle Woodland Period subsistence practices in the middle Chattahoochee River drainage; and (3) to assess the importance of the agricultural complex of starchy-seeded and oily-seeded indigenous cultigens that was recognized at 9Tp62.

Recovery

Because of the problems encountered in floating the samples from Feature 5 (discussed in Chapter III), the plant remains recovered in the heavy fraction (Table 23) were tabulated with the light fraction remains. A total of 389 charred seeds were retrieved from the Feature 5 flotation sample. The charred seeds included 248 nutshell fragments, 96 seeds from possible cultigens, 10 seeds from fleshy fruits, and 10 seeds from herbaceous weeds (Table 24). The charred plant assemblage from 9Tp62 included 15 plant taxa, of which five were identified to species, five were identified to genus, and two were identified to family. One taxon, Cheno-am, refers to seeds that were either goosefoot or pigweed. One hundred and seven nutshell fragments were classified as the Walnut Family. The majority of these poorly preserved nut fragments were probably hickory. Twenty-one seeds and seed fragments were unidentifiable because they had become badly deteriorated and four seeds were unknown.

TABLE 23. Macroplant Remains from the 9Tp62 Heavy Fraction.

Taxon	Count	Weight(in grams)
Nutshell		
Acorn	7	*
Black Walnut	-	-
Hickory	36	0.7
Walnut Family	7	0.1
	Total: 50	Total: 0.8
Wild Plants		
Persimmon	3	
	Total: 3	

KEY
*Total weight is less than 0.1 grams

TABLE 24. Recovered Macroplant Remains from 9Tp62.

Taxon	Count	Weight (in Grams)	Species Abundance
Nutshell			
Acorn	40	0.1	16%
Black Walnut	1	0.1	*
Hickory	101	3.0	41%
Walnut Family	107	1.1	43%
	Total:248	Total:4.3	
Seeds			
Carpetweed	5		4%
.cf Cucurbit	1		1%
Goosefoot	11		8%
Cheno-am	26		18%
Knotweed	7		5%
Maygrass	51		36%
Persimmon	9		6%
Pokeweed	1		1%
Purslane	5		4%
Unidentifiable	21		15%
Unknown	4		3%
	Total:141		

NOTES: * Species Abundance is less than 1.0 percent
Cheno-am refers to seeds that are either goosefoot (Chenopodium sp.) or pigweed (Amaranthus sp.)

The macroplant assemblage from 9Tp62 was abundant and well preserved. The species density from Feature 5 was exceptional; 28.2 seeds and 49.6 nutshell fragments (.86 grams per liter) were recovered from each liter of processed soil. This high rate of recovery and the excellent degree of preservation of the macroplant remains from this site was somewhat contrary to our expectations, since 9Tp62 is inundated much of the year by West Point Lake. Toll (1981) has

shown that both charred and uncharred macroplant remains deteriorate when the archeological deposits containing the remains become inundated.

Analysis And Interpretation

This section discusses the results of the analysis of the macroplant remains retrieved from 9Tp62. In this section, the plant assemblage recovered from Feature 5 is described and compared with other Middle Woodland macroplant assemblages found in the Eastern United States.

Nutshell: Two hundred and forty-eight fragments of charred nutshell were recovered from Feature 5. The assemblage included 40 fragments of oak acorn, 101 fragments of hickory nutshell, one fragment of black walnut nutshell, and 107 fragments of walnut family nutshell. The species density and overall abundance of nutshell at 9Tp62 was high, and suggests that nuts were a dietary staple for the site inhabitants. Nutshell was present at the rate of 49.6 fragments per liter of processed soil, or 0.86 grams per liter. Additionally, 62 percent of the total macroplant assemblage consisted of these four nut taxa.

Nutshell was the most ubiquitous plant-remain at 9Tp62, representing 62 percent of the identified seeds by count. This is not surprising, since charred nutshell is commonly recovered in large quantities from prehistoric sites throughout the Eastern United States (Chapman and Shea 1981; Yarnell and Black 1985). Chapman and Shea's (1981) summary of the Tellico Dam Project plant remains indicates that charred nut remains were common throughout prehistory in eastern North America, though the percentage of nutshell in the total macroplant assemblages tended to decline in the Late Woodland to Early Mississippian periods.

Hickory and walnut family nutshell were the most abundant nut taxa recovered from Feature 5, and respectively comprised 41 percent and 43 percent of the nutshell assemblage. Acorn and black walnut were less abundant, both by percentage and weight. Forty acorn fragments that weighed 1 gm and one black walnut fragment weighing 0.1 gm were collected from the Feature 5 soil sample.

From these data, hickory appeared to be the most important nut species at 9Tp62. This pattern may be deceptive however, since the dense, durable shells of hickory nuts were probably more easily preserved by charring than the more fragile shells of oak acorns. Additionally, several studies (Johannessen 1984:197; McCollough and Faulkner 1976; Smith 1978) suggest that nutshell may have been used as a fuel, which would tend to inflate its archeological abundance. Acorn was probably more important in the diet of the site inhabitants than the count/weight data suggest, since acorn has a higher meat to shell ratio than hickory (Gremillion and Yarnell 1986). Lopinot (1983) estimates that acorn shell possibly contains as much as 200 times the volume of meat as an equivalent amount of hickory nutshell.

The fruits of all three nut species ripened in the fall. Acorns were available from September through November, while hickory nuts and black walnut fruits ripened in October (Radford et al 1968: 362-363, 372). The abundant presence of nutshell at 9Tp62 suggested that the site was occupied in the fall, when nuts could be harvested.

Possible Cultigens: Four seed taxa were identified as possible cultigens at 9Tp62. These included one possible cucurbit seed and 96 seeds from three starchy-seeded annuals (11 goosefoot seeds, 26 cheno-am seeds, 51 maygrass seeds, and 7 knotweed seeds). These possible cultigens were the most abundant seeds recovered from Feature 5, and comprised 68 percent of the 141 recovered seeds. Thirty-six percent of the recovered plant remains were maygrass seeds, while 26 percent came from two taxa, goosefoot and cheno-ams. Five percent of the seeds were knotweed. Maygrass, goosefoot, and knotweed, in association with four other cultigens: (little barley grass [*Hordeum pussillum*], sumpweed [*Iva annua*], sunflower [*Helianthus annus*], and cucurbits), formed a pre-maize gardening system that was apparently prevalent over much of eastern Norther America by the Middle Woodland Period. With the exception of the cucurbits, a of the components of this gardening system were derived from indigenous, starchy and oily-seeded annuals. The discovery of four of the six components of this pre-maize agricultural complex at 9Tp62 implies that these plants were cultivated at this site. If these macroplant remains represent native cultigens, then this is the first documentation of this gardening system in Middle Woodland times in the Middle Chattahoochee River drainage.

Maygrass, goosefoot, and knotweed were present in paleobotanical remains throughout prehistory in the Eastern Woodlands. The abundance of these taxa increased dramatically in the Early to Middle Woodland periods, usually in association with one other indigenous, starchy-seeded annual, little barley grass. The starchy seeds of these four plants often accounted for up to 90 percent of the seeds from Woodland period sites (Asch and Asch 1985; Chapman and Shea 1981; Smith 1985a, 1985b; Johannessen 1984; Yarnell and Black 1985). The striking abundance of these seeds is most clearly documented in the archeobotanical sequences developed for west-central Illinois (Asch and Asch 1985), the American Bottom region east of St. Louis, Illinois (Johannessen 1984), central Kentucky (Smith and Cowan 1987; Yarnell 1974), and the Little Tennessee River Valley of eastern Tennessee (Shea and Altschul 1983). Yarnell and Black's (1985) recent summary of sixty Archaic and Woodland period components in Tennessee, Alabama, and Louisiana also revealed this pattern.

Recent evidence indicates that goosefoot, erect knotweed, maygrass, and little barley grass were cultivated prehistorically, and were grown in pre-maize gardens in association with two indigenous, oily-seeded domesticates (sumpweed and sunflower) and two varieties of Mesoamerican cucurbits. This gardening system was apparently widespread over much of the Eastern Woodlands by 2000 B. P. The archeological abundance of these starchy-seeded cultigens continued into the Mississippian period in several areas of the eastern United States (Asch and Asch 1985; Johannessen 1984; Smith 1985a, 1985b; Yarnell and Black 1985). Maygrass and little barley grass were described as quasi-cultigen/cultigens,

whereas recent studies prove goosefoot was fully domesticated by 3400 B. P. (Smith and Cowan 1987). Two varieties of domesticated goosefoot have been identified over a wide geographic area including Ash Cave, Ohio; Russell Cave, Alabama; many sites in Illinois and Kentucky; and two Ozark bluff shelters in Madison County, Arkansas (Fritz 1984, 1987; Smith 1985a, 1985b; Smith and Cowan 1987). Fritz (1987) has recently described a possible domesticated variety of erect knotweed which she found at sites in Illinois, southeastern Missouri, and northwestern Arkansas.

The abundance of maygrass and the presence of goosefoot and knotweed in Feature 5 suggests that gardening was practiced at 9Tp62. The presence of gardening activities at this site has important implications for calculations of the intensity with which the site was used by its inhabitants and the season of the year when the site was occupied. Maygrass seeds ripen in the late spring and early summer (May-June), while goosefoot and knotweed ripen from the late summer until the first frost (Radford et al. 1968). Maygrass may have been a dietary staple during the late spring and early summer, while goosefoot and knotweed could have been important dietary components in the late summer through the fall. The presence and apparent intensive utilization of maygrass and goosefoot, which ripen in different seasons of the year, indicates that 9Tp62 was occupied throughout the summer and early fall, or that the site locality was used during several seasons of the year. The abundant presence of both taxa in the same pit feature suggests that the site was occupied throughout the summer.

Herbaceous weeds: Ten seeds from two herbaceous weeds were recovered from the flotation samples. These include five carpetweed seeds and five purslane seeds. Both of these plant taxa favor disturbed environments. These plants may have been charred as a result of their intentional use by the site inhabitants, but it is more likely that they represent accidentally charred adventive weeds that were present in the site vicinity.

Fleshy fruits: Two fleshy fruit-producing species: persimmon and pokeweed were present in Feature 5. Both of these species probably grew on or near the site. The most common member of this group was persimmon, which makes up six percent of the seeds by count. Persimmon was frequently dried and stored by Southeastern Indians (Swanton 1946:285, 373) and ripened from September through October (Radford et al 1968:826). Pokeweed was available throughout the summer. Persimmon is a common component of Middle Woodland Period plant assemblages in the southeastern United States.

Summary

9Tp62 yielded Early and Middle Archaic, Middle Woodland, and Late Mississippian materials, with the latter periods representing the most significant components at this site. Based on the analysis of rim fold width, presented above, the Mississippian component may be further divided into two discrete occupations. Features associated with both the Middle Woodland and Late

Mississippian inhabitations appear to be present at the site, as well as a partially-preserved Mississippian midden. Although the site exhibits some overlap in the horizontal distribution of materials, feature preservation indicates that these components can be separated at this level of analysis, as well as through the separation of the midden soils.

In Chapter VII site significance and recommendations pertaining to Site 9Tp62 are discussed on pages 224 and 233, respectively.

Site 9He76

Site 9He76 is located on a point of land extending through generally lower areas of floodplain to the Chattahoochee River from the adjacent uplands. The site follows the highest ground and is basically "L" shaped and 300 meters on a side (Figure 30). Site size is recorded as 6,000 square meters, with the principal locus of occupation being located along a low rise on the western and northern edge of the cultivated field. The site is of sufficient elevation (198 meters NGVD) to be above normal lake levels and therefore is inundated only during abnormally high floods. At present, the Georgia Department of Natural Resources leases the site for cultivation of game food millet. The University of Georgia recorded this site during the 1979 survey and suggested a site occupational history spanning the Archaic to Mississippian period. Artifactual materials recovered by this previous survey included bifaces, flake tools, debitage, and ceramics, with a significant portion of the decorated sherds exhibiting incising (Rudolph 1979).

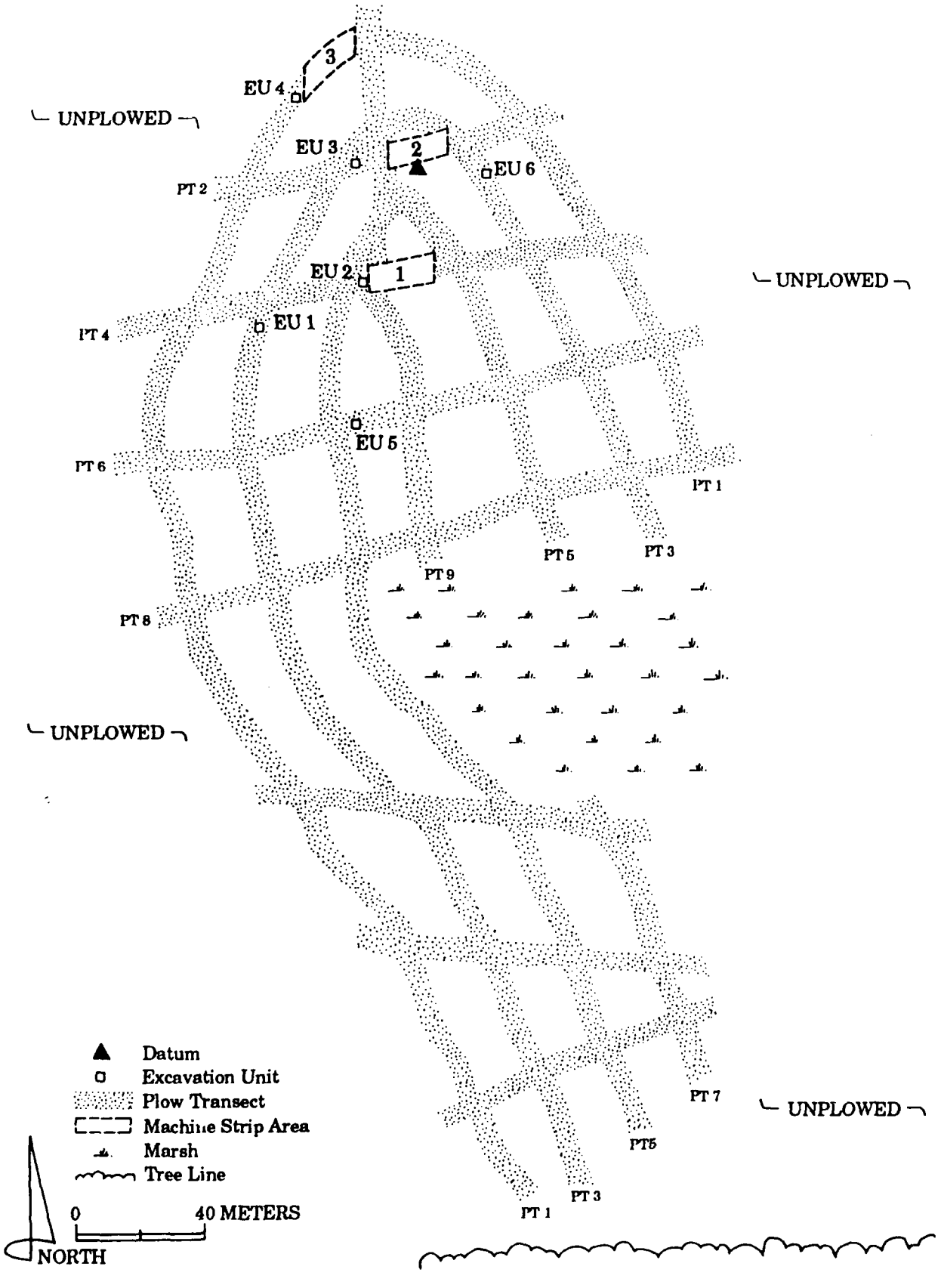
The 1989 Investigation

Archeological testing of Site 9He76 began on March 20 and concluded on April 14, 1989. As per the scope of work, the principal means of testing this site included a controlled surface collection of the overlying plow zone deposits, excavation of small 1 by 2 meter excavation units in the high artifact density areas, and mechanical stripping of select areas for the purpose of locating and investigating subsurface features.

Surface Collections at Site 9He76

The first phase of investigations at Site 9He76 began with a controlled surface collection of the plow zone deposits. This procedure involved plowing a number or plow transects (PTs) approximately five meters wide both north-south (designated by odd numbers) and east-west (designated by even numbers) across the ridge. Establishment of surface collection units then proceeded by dividing each of the plow transects into 20 meter long segments beginning at the point of origin of each plow transect. For locational purposes, the point of origin for the north-south oriented transects was the southern-most point of the transects, and the eastern-most point of the east-west oriented transects. Using this as a basis, the numbering system adopted for identifying each surface collection unit

Figure 30
Site 9He76 Investigations



involved a four digit number incorporating the plow transect number (always the first digit) followed by the end point of the collection unit (measured in meters from each transect point of origin). For example, surface collection unit 6100 corresponds to the collection unit located between 80 and 100 meters from the beginning of plow transect 6. This system was not without flaw, however, since some of the north-south oriented transects crossed east-west oriented transects. When this occurred, the material found in the overlapping unit was always collected as part of the north-south oriented transect. Originally, the surface collection plan called for a total collection of each collection unit; however, this plan needed revising due to the large quantity of material in the northern half of the site. To insure both the adequate representation of the artifact types and densities without exceeding the time allotted for conducting the surface collection procedure, a fifteen minute time limit was imposed on each collection unit. In most instances, this was sufficient time to collect most, if not all, of the artifacts observed in the units.

A total of 3,797 pottery sherds, three pottery disks, three pipe fragments, one ceramic effigy in the form of a fish, 19 projectile points and/or point fragments, 58 bifaces, seven unifacial tools, one drill fragment, two cobble tools, six cores, and 638 pieces of debitage were recovered at Site 9He76 in 1989 (Tables 25 and 26). Diagnostic ceramics are identifiable to the Late Mississippian Lamar period with the majority of the sherds exhibiting diagnostic traits including appliqued rim strips, folded and finger pinched rims, and complicated stamped and incised surface treatments. Eleven identifiable hafted bifaces/projectile points were collected including LeCroy (N=2), Guilford (N=2), Halifax (N=2), Mountain Fork (N=1), Coosa Notched (N=1), Madison Triangular (N=2), and Woodland/Mississippian stemmed point (N=1) types, indicating an Early through Middle Archaic, Middle through Late Woodland, and Late Mississippian occupation of the site.

Data concerning the spatial distribution of the artifacts indicates the Late Mississippian occupation is confined to the area north and west of the marsh, where numerous ceramics, pieces of daub and charred bone were observed in a number of the collection units. Conversely, diagnostic Archaic and Woodland period artifacts were distributed primarily along the western perimeter of the site. South of the marsh, debitage occurred most frequently in the units with only four ceramic sherds (one finger pinched) recovered in this area. Diagnostic lithic tools found in this latter area included an Early Archaic LeCroy and a Middle Archaic Guilford point. Northwest of the marsh, no discrete spatial patterning occurred in the locations of the various Archaic, Woodland, and Mississippian period projectile point types.

The Late Mississippian Lamar ceramic assemblage recovered during the surface collection at 9He76 is almost identical to the ceramic collection made at Site 9Tp62, with virtually the same percentage of types present. The one exception to this pattern is in the rim fold widths taken from sherds recovered at Site 9He76. Rim sherds were measured in the same manner as described for Site 9Tp62, yielding a combined mean fold width for simple folded and appliqued rims of 17.66

mm (Table 27). This represents an increase of approximately 1 mm in the average fold width from the 9Tp62 collection and implies a slightly later occupation at Site 9He76 (assuming that an increase in fold widths occur overtime). Also, the Site 9He76 mean fold width approaches the mean fold width of 18 mm calculated for the Avery Mound Site (9Tp64) (Hally and Oertel 1977:39), implying the synchronic occupation of these two sites. However, the percentage of complicated stamped and incised ceramics at the 9Tp64 vs 9He76 are very different and suggest non-contemporaneous occupations.

TABLE 25. Site 9He76 Ceramics Recovered By Controlled Surface Collection

	CERAMIC FORM								
SURFACE TREATMENT	Rim	Body	Pipe	Handles	Disk	Shoulder	Effigy	Totals	%
Bold Incised	36	164						200	5.3
Medium Incised	10	27						37	1.0
Fine Incised	1							1	0.0
Punctate/Incised		6						6	0.2
Punctate		3						3	0.1
Finger Pinched	35			1				36	0.9
Brushed	2	1						3	0.1
Plain	106	3288	3	3	2	2		3404	89.6
Complicated Stamped	2	26						28	0.7
Checked Stamped								0	0.0
Simple Stamped								0	0.0
Cord Marked								0	0.0
Unmodified	7	4			1			12	0.3
Eroded	22	44						66	1.7
Painted			1				1	2	0.0
Unidentified	3							3	0.1
Totals	224	3563	4	4	3	2	1	3801	100.0

In terms of overall assemblage composition, the 9He76 assemblage is closest to the assemblage recovered from the Site 1Ra28; an Avery Complex site located in eastern Alabama. This site yielded three percent complicated stamped, 4.1 percent incised, and 92.1 percent plain ceramics (excluding Woodland and Etowah material) (Knight 1977:Table 22). The Avery Complex has been dated by ceramic crossties and a radiocarbon date (1460±110: UGa 900) as spanning the years between A. D. 1300 to 1600, although it should be noted that carbon dates submitted from a burial at Site 1Ra24 and archeological deposits containing Avery Complex materials at Site 1Ra28 yielded dates of 1265±135 (UGa 1113) and 1150±70 (UGa 1112) years, respectively. These two dates have been dismissed as too early (Knight 1980:23). Using the formula of increased percentages of incising with a commensurate decrease in complicated stamping through time, Site 9He76 can be dated to the latter half of the Avery Complex Period for the project area. This, in addition to the recovery of several Alabama River-like strap handles and brushed pottery could indicate an even later occupation dating into the seventeenth century.

TABLE 26. Lithics Recovered from Surface Collections at Site 9He76

	Raw Material					
	Quartz	Quartz Crystal	Chert	Metavolcanics	Granite	TOTALS
Debitage						
Primary	6			1		7
Secondary	8			1		9
Tertiary	306	6	30	2		344
Unidentified	128	2	1			131
Flake Blank	17					17
Shatter	125	4		1		130
Cores	5	1				6
Projectile Points	7		3			10
PPt Frags.	8					8
Bifaces						
Stage I	28		1			29
Stage II	28		1			29
Unid. Biface						
Drill			1			1
Mano	1					1
Hammerstone	1					1
Unifacial Tools	5	1	1			7
Unidentified	3				4	7
Totals	676	14	38	5	4	737
Percents	91.7	1.9	5.2	0.7	0.5	100.0%

TABLE 27. Site 9He76 Folded and Appliqued Rim Measurements in Millimeters

Simple Folded Rims	Appliqued Rims		
Rim Widths	Applique Distance	Applique Width	Total Distance
12	9	16	25
21	5	7	12
15	7	8	15
	10	14	24
	9	8	17
	8	10	18
	9	10	19
	8.5	11	19.5
	5	12	17
	14	7	21
	7	8	15
	5	8	13
	7	12	19

Simple Folded Rims	Appliqued Rims	Combined Width
N=3	N=13	N=16
Mean=16	Mean=18.04	Mean=17.66
St. Deviation=4.58	St. Deviation=3.87	St. Deviation=3.93
Variance=21.0	Variance=14.94	Variance=15.42

Excavation Unit Results

The next phase of investigations was the excavation of six 1 by 2 meter units in areas yielding dense artifact concentrations or an unusual variety of artifact types (Figure 30). Plow zone deposits were quickly removed from the units without any attempt to recover additional artifacts from the disturbed upper horizon. The purpose of these units was to observe the depth at which the subsoil occurred and to observe the contact zone between the plow zone and the subsoil for the presence of cultural features. The typical soil profile exposed in these units consisted of a 20 to 25 centimeter thick dark brown (7.5YR4/2) silt loam plow zone overlaying either a reddish brown (5YR4/4) or dark red (2.5YR4/6) clay subsoil. Plow disc scars observed on the surface of the subsoil in each of the units indicate that an unknown portion of this lower-most deposit has been intruded into by recent agricultural activities at the site. A total of five features, two in Excavation Unit 2 (Features 1 and 2) and three in Excavation Unit 4 (Features 3, 4, and 5) were identified and examined during this phase of the field investigations (Figure 31). Each feature was cross-sectioned and one half of it's fill saved for future flotation analysis. The remaining feature fill was screened for its artifactual content.

Feature 1

Feature 1 was a small circular stain approximately 20 cm in diameter and 40 cm deep. The stain exhibited straight walls and a flat bottom. The fill consisted of a dark brown (7.5YR3/2) silt loam. The fill taken from the southern half of this feature yielded one small chunk of charcoal. The northern half of the feature was saved for future flotation analysis.

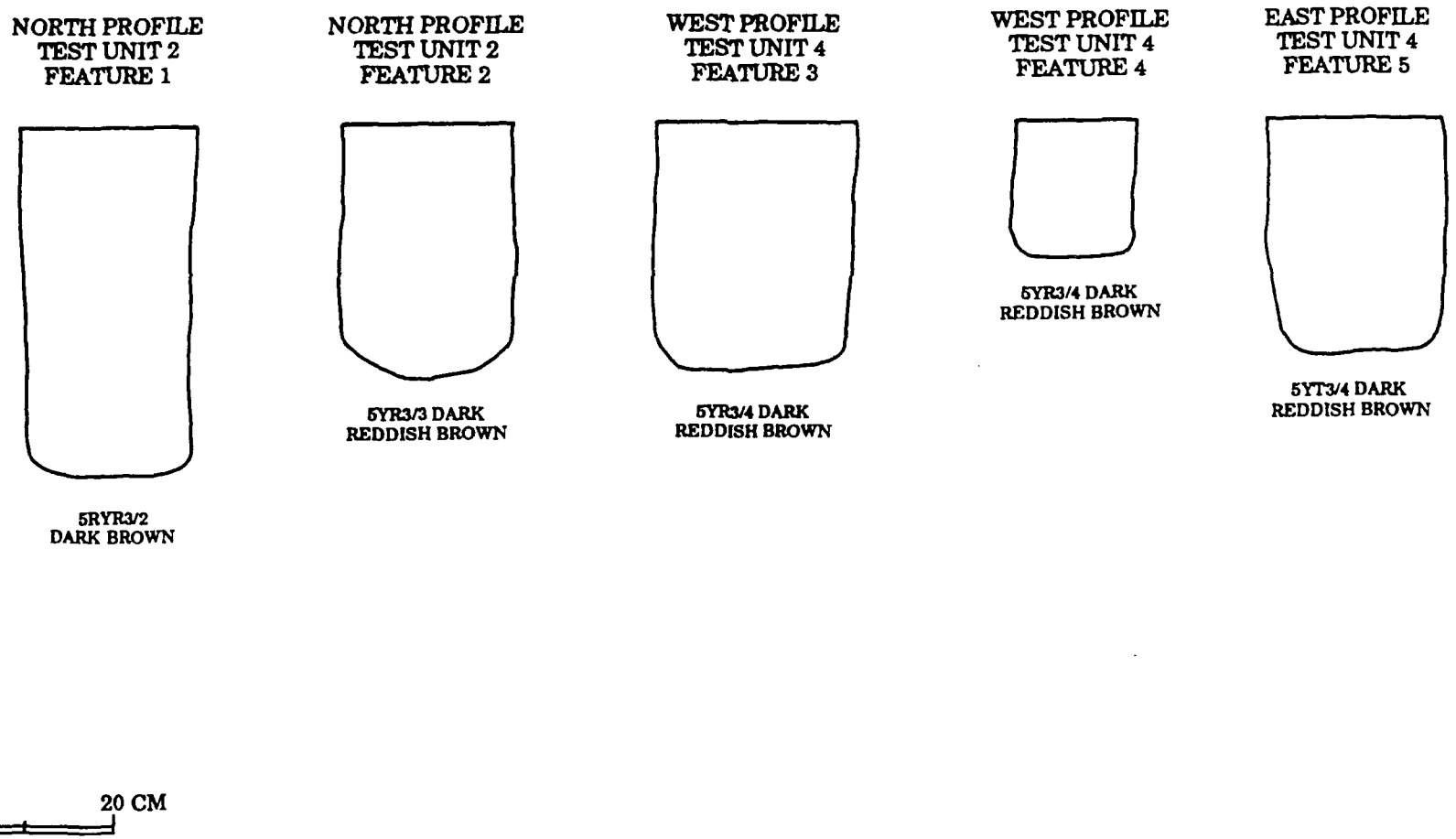
Feature 2

Feature 2 was a small circular stain approximately 18 cm in diameter and 29 cm deep. The stain exhibited straight walls and a slightly curved bottom. The fill consisted of a dark reddish brown (7.5YR3/3) silt loam with a few mottles of dark red (2.5YR3/6) clay. The fill taken from the southern half of this feature yielded small charcoal flecks. The northern half of the feature was saved for future flotation analysis.

Feature 3

Feature 3 was a small circular stain approximately 23 cm in diameter and 28 cm deep. The stain exhibited straight walls and a flat bottom. The fill consisted of a dark reddish brown (5YR3/4) silt loam. The northern side of this feature was intruded into by a rodent burrow that exhibited a dark brown (7.5YR4/4) hue. The fill taken from the eastern half of this feature yielded no artifactual material. The western half of the feature was saved for future flotation analysis.

Figure 31
Site 9He76 Features Found In Test Units



Feature 4

Feature 4 was a very small circular stain approximately 14 cm in diameter and 16 cm deep. The stain exhibited straight walls and a flat bottom. The fill consisted of a dark reddish brown (5YR3/4) silt loam. The fill taken from the eastern half of this feature yielded small charcoal flecks. The western half of the feature was saved for future flotation analysis.

Feature 5

Feature 5 was a small circular stain approximately 20 cm in diameter and 26 cm deep. The stain exhibited straight walls and a flat bottom. The fill consisted of a dark reddish brown (5YR3/4) silt loam. The fill taken from the eastern half of this feature yielded no artifactual material. The western half of the feature was saved for future flotation analysis.

Mechanical Stripping Operations

The final phase of investigation at Site 9He76 involved the use of a road grader to strip off the plow zone in the areas judged most likely to contain sub-plow zone features. These locations were designated Strip Areas 1, 2, and 3 and measured approximately 20 meters long by 5 meters wide. The total amount of stripped area then equals 300 square meters or approximately 1.07 percent of the Mississippian component located north of the marsh. After removing the plow zone from each strip area, it's boundary was mapped and flat shovels were used to fine shave the newly exposed surface. This phase of the investigation resulted in the discovery of 13 additional stains (Features 6 through 18) of various sizes and shapes. Each stain received a feature number and was cross-sectioned to ascertain its origin and possible function. In several instances, feature size and shape estimates initially recorded at the conclusion of the stripping operation had to be revised given the results of the detailed examination of each stain. Soil smearing by the grader and the occurrence of overlapping or intrusive features were the most common reasons for altering these initial observations. When separate features overlapped or when smaller features were found within larger features, attempts were made to separate these fills whenever possible. Usually these intrusive features were labelled A, B, C, etc. for identification and analytic purposes. Feature descriptions for the three strip areas are provided below.

Strip Area 1

Feature 6 Feature 6 was initially recorded as a vague dark reddish brown (5YR3/2) circular stain approximately 50 cm in diameter. As the excavation proceeded however, it became apparent that there were three smaller circular stains within the feature area. Each of these smaller stains were examined separately, and designated 6A, 6B, and 6C. All were bisected along an east-west line and the south half of the feature fills removed for profiling and mapping purposes. Feature 6A represented a tree burn with large chunks of recent charcoal and uncharred wood fragments in its matrix. Feature 6B represented a

small circular stain approximately 9 cm in diameter and 24 cm deep. The stain exhibited straight walls and a flat bottom. The fill consisted of a dark reddish brown (5YR3/2) clayey loam, which was saved for future flotation analysis. Feature 6C represented a larger circular stain approximately 18 cm in diameter and 40 cm deep. The stain exhibited straight walls and a flat bottom. The fill consisted of a dark reddish brown (5YR3/2) clayey loam with common fine mottles of brownish yellow (10YR6/8) clay. The matrix of this feature contained numerous small flecks of charcoal and was saved for future flotation analysis.

Feature 7 Feature 7 was initially recorded in plan view as a vague circular stain approximately 40 cm in diameter. However, the excavation revealed a very shallow smear deposit capping a much smaller circular stain approximately 14 cm in diameter. The matrix of this smaller stain consisted of a dark reddish brown (5YR3/3) clay, which was excavated to a depth of 90 cm below the surface of the subsoil deposit. The side walls tapered towards the bottom with numerous small feeder root casts occurring in the subsoil deposit surrounding the feature. Based on it's size, shape, and depth characteristics, this feature was interpreted as non-cultural and probably the remains of a tree.

Feature 8 Feature 8 was initially recorded as a dark reddish brown (5YR3/2) silty loam circular stain approximately 40 cm in diameter. Excavation of this feature revealed that the fill matrix changed to a brownish yellow (10YR6/6) silty clay at a depth of 50 cm. The feature matrix exhibited evidence of severe mixing to a depth of 86 centimeters below surface. No artifacts were found and the feature was interpreted as the remains of a tap root.

Feature 9 Feature 9 was initially recorded as a irregularly shaped stain approximately 22 cm in diameter. The feature matrix consisting of a dark gray (10YR3/1) clay and contained numerous charcoal flecks. Excavation of Feature 9 revealed that the fill matrix changed to a strong brown (7.5YR5/6) clay mottled with a dark gray clay at a depth of 20 cm. The feature matrix exhibited evidence of severe mixing to a depth of 50 centimeters below surface. This feature yielded no artifacts and was interpreted as the remains of a tap root.

Feature 10 Feature 10 consisted of a dark reddish brown (5YR3/3) silty loam interior surrounded by a 20 cm wide band of dark olive (2.5YR3/2) sandy clay. The feature was circular in plan view and approximately 45 cm in diameter. Excavation of this feature revealed a tapered sidewall construction that terminated at a depth of 66 cm below ground surface. The interior dark reddish brown matrix also exhibited tapered sidewalls and a narrow flat bottom, which terminated at a depth of 48 cm below ground surface. This interior portion of the feature was interpreted as a post mold contained within a larger pit excavated for the purpose of setting the post. Several pieces of charcoal lined the contact zone separating the post mold and post hole suggesting that the post was burned in place. Artifacts recovered from near the surface of this feature included six plain smoothed body sherds, one Lamar bold incised body sherd, and one Lamar folded finger pinched rim sherd. The fold width of the rim sherd was 12 mm.

Strip Area 2

Feature 11 Feature 11 was a small circular pit approximately 25 cm in diameter and 13 cm deep. The stain exhibited one straight and one sloping wall, and a flat bottom. The fill consisted of a strong brown (7.5YR4/4) clay mixed with burnt red clay nodules and numerous pieces of charcoal. The sloping eastern wall was lined with a thick layer of charcoal beginning at the feature surface and extending downward to the feature base. The excavation yielded artifacts throughout the fill and included five plain smoothed body sherds, a punctated body sherd, and two pieces of a punctated rim sherd. All the sherds appear to be from the same vessel and the single row of reed punctations within the plain neck band of the rim sherd conforms to the description of a Crooked Creek vessel recovered at in the Rother L. Harris Reservoir (Knight 1980). A carbon sample and all of the fill dirt from this feature was saved for future analyses.

Feature 12 Feature 12 was a large shallow basin approximately 80 cm in diameter and 8 cm deep. The feature fill consisted of a dark reddish brown (5YR3/4) clay loam mixed with numerous charcoal flecks and several charcoal chunks. Artifacts recovered from the feature fill included 10 plain body sherds, two plain smoothed rim sherds (appear to be from the same vessel), an Alabama River-like strap handle, a bold incised rim sherd, quartz crystal and chert debitage (N=2), and a Stage II quartz biface. In the bottom of the basin, a small post hole was observed a labelled Feature 12A. This smaller feature was approximately 10 cm in diameter and extended for to a depth of 12 cm below the bottom of the basin. No artifactual material came from this smaller feature.

Feature 13 Feature 13 was a shallow circular basin approximately 78 cm in diameter and 10 cm deep. The northern-most boundary of this feature overlapped with another circular feature; Feature 16 (discussed below). The fill from Feature 13 consisted of a dark reddish brown (5YR3/4) clay loam mixed with numerous charcoal flecks and artifacts. Artifacts recovered from the western half of this feature included one deer mandible, seven plain smoothed body sherds, two medium incised body sherds, one plain shoulder fragment, two folded finger pinched rims, one medium incised rim sherd, one piece of quartz debitage, one Stage II biface, and a ceramic effigy of a turtle head (Figure 32h). The rim sherds recorded in this feature came from the area that overlapped with Feature 16 so the exact provenience of these sherds is not known. Fold widths of the two folded rims were 17 and 18 mm. The fill from the eastern half of this feature was saved for future flotation analysis. A charcoal sample taken from the western half of this feature was submitted for radiocarbon analysis and yielded a corrected calender date of A.D. 1278 (730 ± 70 BP, Beta-33575). This date is considered too early for the types of artifacts recovered in the feature fill. Addition information concerning this feature is provided below in the ethnobotanical analysis section.

Feature 14 Feature 14 was a large shallow basin approximately 150 cm in diameter and 12 cm deep. The feature fill consisted of a very dark brown (7.5YR3/4) clay with occasional mottles of dark brown (7.5YR3/2) clay and frequent charcoal flecks. Artifacts recovered from the southern half of this feature included bone, 62 plain smoothed body sherds, two brushed body sherds, three

Site 9He76 (A-H). Feature 15 (A-E); Feature 13 (F-H); Pipe Fragment (A); Incised Pottery (B-D, G); Finger Pinched (E); Complicated Stamped (F); Turtle Effigy (H).

Figure 32
Site 9He76 Features 13 and 15

plain smoothed rims, one finger pinched folded rim with a fold width of 8 mm, one medium incised interior decorated rim, metavolcanic, chert, and quartz debitage, and one quartz crystal core. The north half of this feature was removed and saved for future flotation analysis.

Feature 15 Feature 15 was a large oval basin measuring 220 cm east/west by 130 cm north/south. The feature fill consisted of a dark reddish brown (5YR3/4) silt loam and numerous charcoal flecks. Portions of the side walls and bottom of this feature appeared to have a thin red clay liner which pealed off of the surface of the subsoil when trowelled. Numerous artifacts were found on the feature surface and along the exterior edges of the pit. Artifacts recovered from this feature included 85 plain smoothed body sherds, five brushed body sherds, nine bold incised body sherds (one shell tempered), four medium incised body sherds, one fine incised body sherd, one complicated stamped body sherd, two plain shoulders, seven plain smoothed rims, one finger pinched rim with an applique rim strip, one medium incised rim, one pipe bowl fragment (Figures 32a-e and 33), one Stage II quartz biface, chert and quartz debitage, and fire cracked rock. One relatively large bodied sherd was found near the pit center, which covered a sizeable piece of charcoal. The charcoal was submitted to Beta Analytic for carbon dating, which yielded a corrected calender date of A.D. 1280 (710 ± 100 BP, Beta-33728). This date is considered too early for the types of artifacts recovered from the feature.

Feature 16 Feature 16 was a shallow circular basin approximately 50 cm in diameter and 10 cm deep. The southern-most boundary of this feature overlapped with another circular feature; Feature 13 (discussed above). The overlapping area between these two features was removed and included within the larger Feature 13 fill since the feature fills were the same color and there was no clear way of separating the two. As noted above, three rim sherds described in the Feature 13 description came from the overlap area and could be associated with Feature 16. At the base of Feature 16, three additional stains occurred and were labelled 16A, 16B, and 16C. Feature 16A had a well defined border which intruded into Feature 16B, which exhibited a lighter hue. The excavation proceeded by removing Feature 16A first, then the remaining portion of Feature 16B, and finally Feature 16C. Each of these features exhibited straight walls and flat bottoms suggestive of post holes. Artifacts recovered Feature 16 included one finger pinched rim with an applique rim strip, seven plain smoothed body sherds, one base support of body node fragment, and one Stage I quartz biface. The fill from the eastern half of Feature 16 was saved for future flotation analysis.

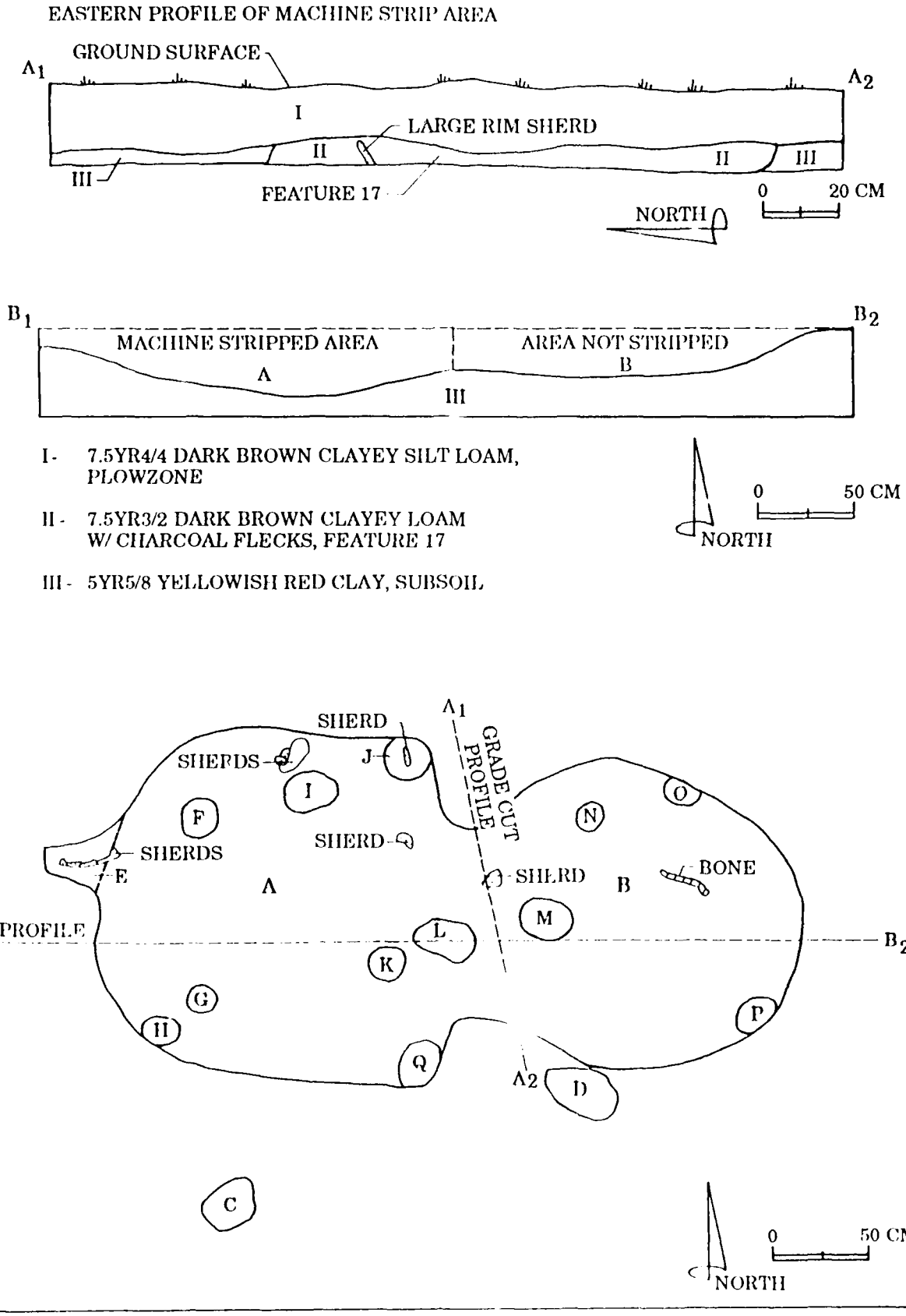
Strip Area 3

Feature 17 Feature 17 was first discovered during the stripping operation when a large dark stain appeared at the base of the plow zone. The stain was circular in outline and consisted of a dark brown (7.5YR3/2) clayey loam. The eastern edge of the stain extended into the wall of the grader cut and was clearly visible beneath the plow zone in the profile (Figure 34). Also a large rim and body sherd intruded into the profile within the feature fill deposit. As the cleaning of

Site 9Hc76 (A, B). Complicated Stamped (A); Chattahoochee Brushed (B).

Figure 33
Site 9He76 Feature 15

Figure 34
Site 9He76 Feature 17 A-Q, Profiles and Plan View



the strip area progressed, additional sherds were noted within the exposed portion of the feature (Figure 35), and a change in the feature configuration was noted. The eastern perimeter of the stain exhibited a wide continuous arc, while the western perimeter was formed by right angles, which first curved inward and then outward before disappearing beneath the grader cut profile (Figure 34). The subsequent removal of the overburden in this area resulted in a full plan view of the feature outline. The outline was not circular but more oval in appearance, with opposing indentations at the midpoints of each side's long axis. The eastern-most portion of the feature extending outside of the strip area was smaller but of the same general shape as the western portion of the feature. Initially, this configuration could be interpreted as two separate, overlapping pits. However, the symmetry of the feature combined with artifactual data suggest that this was a single feature. The size of this feature measured four meters along the east/west axis and two meters along the north/south axis.

For investigative purposes, the feature was divided into two separate proveniences labelled 17A and 17B. Provenience 17A represented the western portion of the feature that was uncovered during the stripping operation, while 17B represented the eastern portion of the feature located outside of the strip area. The maximum depth of Provenience 17A was 40 cm, while the maximum depth of Provenience 17B was 25 cm. Artifacts initially collected from the surface of this feature before proveniences were assigned included 32 plain smoothed body sherds, two bold incised body sherds, one punctated incised body sherd, three plain smoothed rim sherds, and one plain folded rim sherd with a fold width of 6 mm.

The greatest density (N=227) of artifacts discovered in the feature was in Provenience 17A. Within this provenience the artifacts included 157 plain smoothed body sherds, 12 bold incised body sherds, 16 medium incised body sherds, one punctated incised body sherd, one complicated stamped body sherd, one check stamped body sherd, one brushed body sherd, one smoothed plain shoulder, one plain rim with complicated stamped body, eight plain smoothed rims, four plain rims with brushed bodies (Figure 36b), four rims with finger pinched appliqued rim strips (Figure 36a), one finger pinched folded rim, two plain folded rims, four rims with bodies exhibiting bold incising, one rim with a body exhibiting medium incising, one rim with a body exhibiting a complicated stamped design, six pieces of chert and quartz debitage, one quartz cobble mano, fire cracked rock, and numerous small pieces of bone and daub. Twenty two of the ceramics within this provenience were shell tempered.

Further excavation revealed nine small post stains in the bottom and sides of this provenience (Figure 34 bottom). Each of these stains were labelled and excavated separately. Stains 17J and 17Q represented positions of upright posts that were located in the eastern corners of this feature. The recorded depths of 17J and 17Q were nearly equal, with the base of 17J measured at 43 cm and 17Q at 44 cm. Stain 17H was also located along the wall of this provenience, but unlike the upright posts of 17J and 17Q, this post was slanted into the wall of the feature at approximately a 70 degree angle and a depth of approximately 50 cm. Stain

Site 9He76 (A-I). Lamar Incised (A, G-I); Zone Punctated (D-F); Lamar Plain with Incised Lip (B, C).

Figure 35
Site 9He76 Feature 17 Lamar Incised and Punctated Pottery

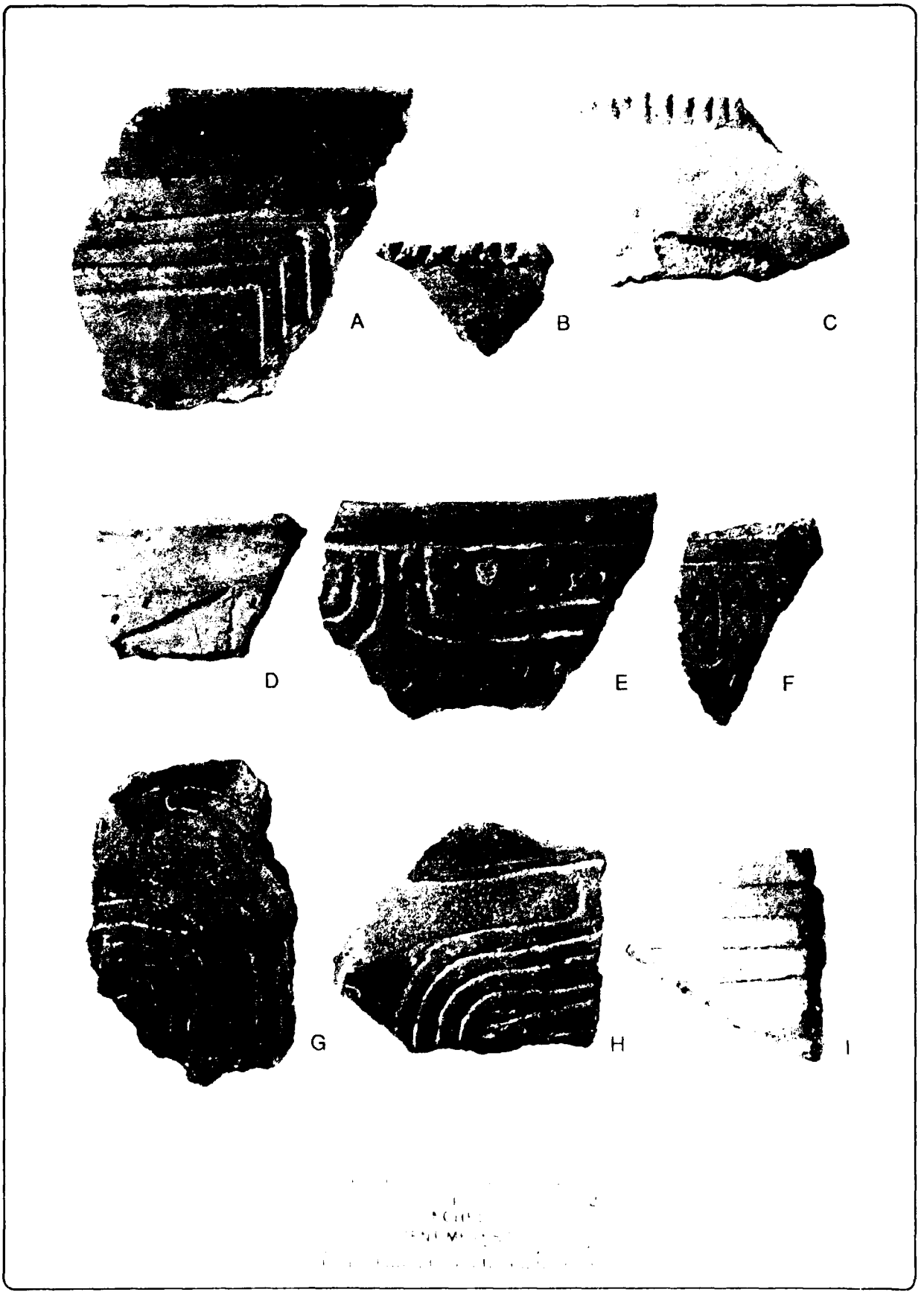
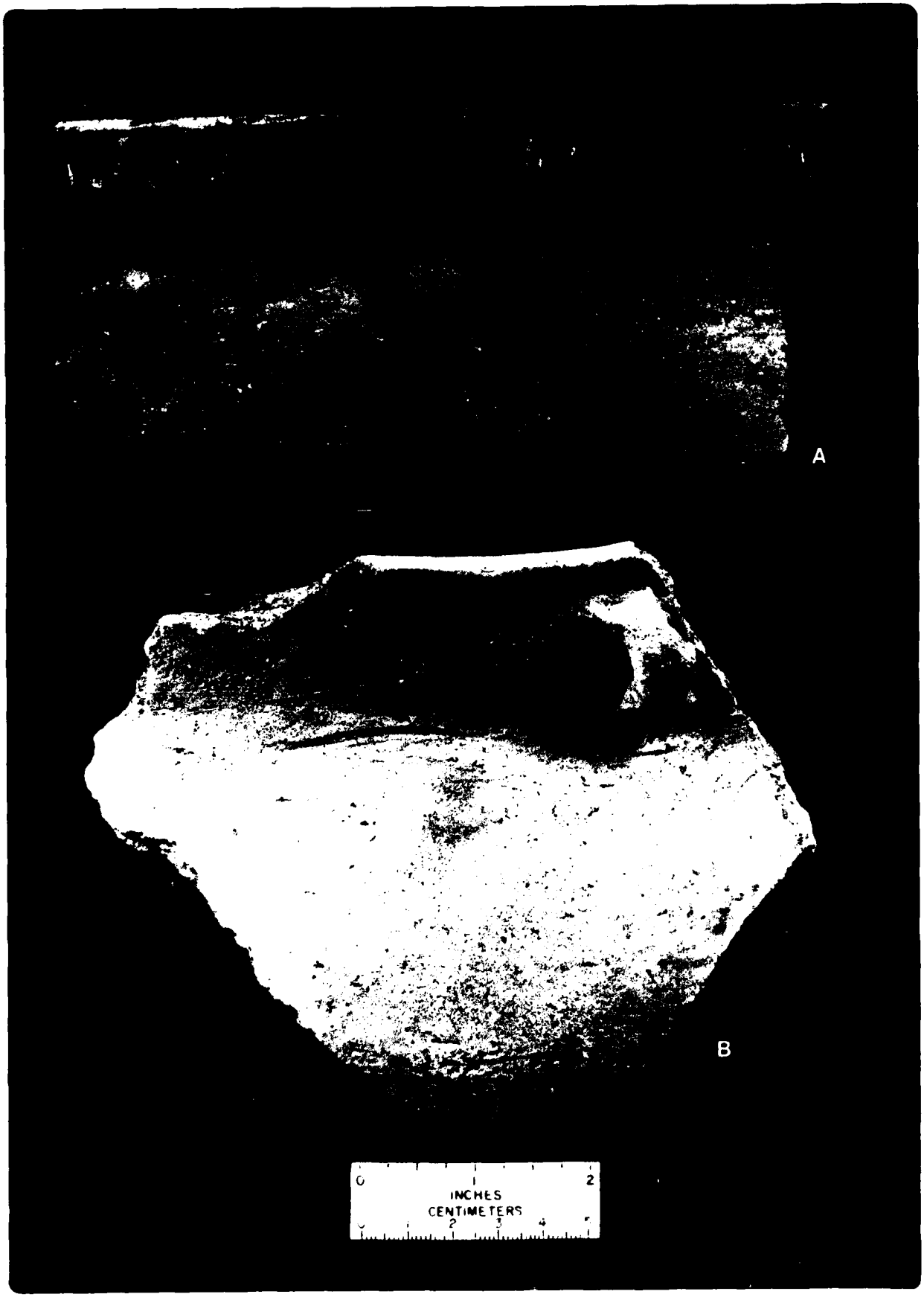


Figure 36
Site 9He76 Feature 17 Lamar Finger Pinched and Brushed Pottery

Site 9He76 (A, B). Finger Pinched Rim (A); Chattahoochee Brushed (B)



17E, located along the opposite wall from 17H, exhibited an unusual shape that extended beyond the arc of Provenience 17A. The excavation of this stain revealed the possible presence of multiple posts with a fire hardened clay bottom at a depth of 42 cm. Also, numerous potsherds (N=36) from a single vessel were recovered from this stain. One possible explanation for this stain is that the original post collapsed, causing damage to the side of the feature. In replacing the post, a new hole was excavated and sherds were added to the fill for possible reinforcement. Stains 17F, 17G, 17I, 17K, and 17L represented upright posts discovered in the center of Provenience 17A and their association with this provenience is questionable. All or some of these posts could have served as interior roof supports (appreciable amounts of daub were recovered in Provenience 17A suggesting a roof) or they may have served some other unknown function. Added support for the use of broken pottery as a reinforcing agent is provided by the number of sherds found in the other corner posts. Posts 17H contained eight plain smoothed sherds, 17J four plain smoothed sherds, and 17P (discussed below) two plain smoothed and six bold incised sherds. No other posts, with the exception of 17M, contained sherds in their fills.

Provenience 17B contained fewer artifacts than 17A but this is partly due to its smaller size and depth. A sample of the ceramic artifacts recovered from this provenience are illustrated in Figure 37, which included 95 plain smoothed body sherds, 13 bold incised body sherds, six medium incised body sherds, two brushed body sherds, two check stamped sherds, four plain shoulders, one bold incised shoulder, 10 plain smoothed rims, one unmodified plain rim, one finger pinched rim with an applique strip, two rims with bold incised bodies, one punctated incised rim, one piece of quartz debitage, one piece of chert debitage, fire cracked rock, and numerous pieces of small bone and daub. Four sherds recovered within this provenience were shell tempered.

As in Provenience 17A, 17B contained a number (N=4) of smaller post stains in its floor and sidewalls (Figure 34). Stains 17O and 17P were excavated into the eastern-most wall at about the same angle as post 17H. The depths at which these two posts were buried was 30 cm and 34 cm, respectively. The two remaining posts (17M and 17N) discovered in this provenience were in the interior and their association with this feature is questionable. The excavation of stain 17M yielded one medium incised body sherd.

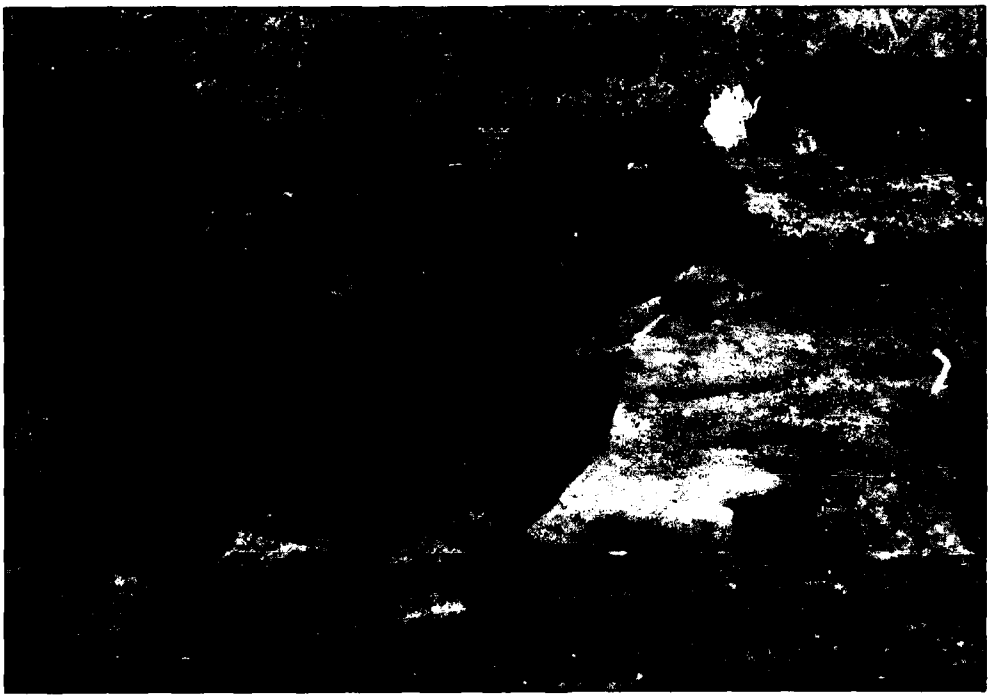
In summarizing the results of the Feature 17 excavation, the remains of a possible Late Lamar structure were found (Figure 38). Initially, this feature was defined as two large, overlapping pits however, its overall shape, contents, and the placement of posts for supporting a roof indicates a single archeological manifestation. Also, several sherds collected from the two proveniences (17A and 17B) were cross-mended further indicating the contemporaneous nature of the separate fills. Addition information concerning this feature is provided below in the ethnobotanical analysis section.

Site 9He76 (A-E); Lamar Plain (A, C-E); Incised (B); Folded and Pinched Rim (E)

Figure 37
Site 9He76 Feature 17 Lamar Plain, Incised and Folded Pottery

Figure 38
Site 9He76 Feature 17

A. Feature fill removed from both lobe 17A (left) and lobe 17 B (right). View to the northeast.



B. Completed Excavation of feature and post molds discovered in floor and side walls of structure. View to the east.

Feature 18 Feature 18 was a circular pit approximately 50 cm in diameter that consisted of a dark reddish brown (5YR3/3) silty loam. The excavation revealed a tapered sidewall construction that terminated at a depth of 85 cm below ground surface. The fill was loosely compacted, and there was evidence of recent disturbance by tree roots, which penetrated the side walls. Artifacts were found throughout the fill and included 89 plain smoothed body sherds, one bold incised body sherd, one brushed body sherd, two complicated stamped body sherds, one Alabama rive applique sherd, two plain smoothed sherds, two plain smoothed rims, one rim with a finger pinched applique rim strip, one finger pinched folded rim, three pieces of quartz debitage, small bone fragments,and fire cracked rock.

Analysis of 9He76 Feature Macroplant Remains

This section has three objectives: (1) to evaluate the extent and quality of macroplant preservation at 9He76; (2) to document the plant resource structure available at the site in order to gain a better perspective on Lamar Period subsistence practices in the Middle Chattahoochee River drainage; and (3) to compare the macroplant assemblage from 9He76 with plant remains recovered from other Lamar Period sites in Georgia, specifically the macroplant assemblages from three Lamar Period upland sites in the Middle Oconee River drainage which had received comparable analysis. The sites were (1) Sugar Creek (9Mg4), (2) Carroll Village (9Pm85), and (3) Lindsey (9Mg231) (Bonhage-Freund 1990).

Recovery

A total of 520 charred seeds were retrieved from the Feature 13, 15, and 17 flotation samples. The charred seeds included 211 nutshell fragments, 274 corn cupules and kernels, 10 seeds from fleshy fruits, and 10 seeds from herbaceous weeds (Table 28).

The charred plant assemblage from 9He76 included 13 plant taxa, of which two were identified to species, eight were identified to genus, and one was identified to family. One hundred and twenty-seven nutshell fragments were placed in the more general category of hickory/walnut, because they were too fragmentary to specifically identify. The majority of these poorly preserved nut fragments were probably hickory. Fifteen seeds, seed fragments, and other plant parts were unidentifiable.

Three analytical procedures were used to describe the plant assemblage at 9He76: (1) species ubiquity; (2) species density; and (3) species abundance (see Chapter III for a description of these analytical techniques). The species density of seeds at 9He76 was reasonably high; 10.3 seeds were recovered from each liter of processed soil. The recovery of nutshell, on the other hand, was more moderate, with 7.0 fragments (0.2 grams per liter) recovered per liter. Corn kernels and cupules were well-represented in the macroplant assemblage, with the density being 7.8 kernels and cupules per liter of soil. The species density of

all other seeds less the corn remains was quite low; only 1.06 seeds were recovered per liter. The density of corn suggested that this taxon was a dietary staple at 9He76. This suggestion must be viewed with caution, however, since there is evidence that corn cobs were used prehistorically as fuel. This practice would tend to inflate the archeological presence of this plant remain.

The ubiquity of the macroplant remains indicates that corn and nutshell were the most important dietary components at 9He76. Corn cupules, hickory nutshell, and black walnut nutshell were present in 100 percent of the sampled features. Corn kernels, oak acorn, and goosefoot were present in 75 percent of the flotation samples. Grass was present in 50 percent of the samples, and bramble, grape, persimmon, pine cone scales, and purslane were present in one sample (25%) each. The high ubiquity of corn and nutshell at 9He76 is suggestive of its dietary importance. The high ubiquity of goosefoot, on the other hand, is probably more valuable as an indicator of environmental disturbance at the site locality than as an indicator of the degree of dietary importance of this taxon. The small numbers of goosefoot and purslane that were recovered probably indicate the accidental charring of adventive weeds growing in the site vicinity rather than the intentional burning of economically important plants.

TABLE 28. Macroplant Remains from 9He76.

Taxon	Feature 13	Feature 15	Feature 17-A	Feature 17-B	Total
Cultigens					
Corn Cupules	12	11	210	29	262
Corn Kernels	5	--	4	3	12
Total:	17	11	214	32	274
Wild Plants					
Bramble	--	--	--	1	1
Goosefoot	2	--	2	2	6
Grape	1	--	--	--	1
Grass Family	2	--	1	--	3
Persimmon	--	--	-	5	5
Pine Cone Scales	--	--	3	--	3
Purslane	--	--	1	--	1
Unidentifiable	--	1	6	8	15
Total:	5	1	13	16	35
Nutshell					
Acorn	1	--	3	3	7
Black Walnut	2	1	33	9	45
Hickory	11	5	14	2	32
Hickory/Walnut	28	27	64	8	127
Total:	42	33	114	22	211

Corn cupules were by far the most abundant taxon identified at 9He76, comprising fifty percent of the recovered plant remains. When the nutshell was removed from the seed tally, then the relative abundance of corn increased to 85 percent of the total (Table 29). Four percent of the recovered macroplant remains

(less the nutshell) were corn kernels, while bramble, goosefoot, grape, persimmon, pine cone scales, and purslane each made up two percent or less of the recovered seeds (less the nutshell). Black walnut (21 percent of the total nutshell) was more abundant than hickory (15 percent of the nutshell) in the 9He76 assemblage. However, 60 percent of the recovered nutshell was placed in the more general category of hickory/walnut, because it was too fragmentary to specifically identify. Hickory is typically the most abundant nutshell remain for all time periods in the Eastern Woodlands.

TABLE 29. Species Ubiquity and Species Abundance of Plant Remains from 9He76.

	In Percent	
	Species Ubiquity	Species Abundance Of All Seeds
Cultigens		
Corn Cupules	100	85
Corn Kernels	75	4
Wild Plants		
Bramble	25	*
Goosefoot	75	2
Grape	25	*
Grass Family	50	1
Persimmon	25	2
Pine Cone Scales	25	1
Purslane	25	*
Nutshell		Of All Nutshell
Hickory	100	15
Black Walnut	100	21
Acorn	75	3
Walnut Family	100	60

KEY
* Less than one percent

Analysis and Interpretation

This section discusses the analysis results of the macroplant remains retrieved from 9He76. In this section, the plant assemblage recovered from Features 13, 15, and 17 at 9He76 are analyzed and compared to paleoethnobotanical remains recovered from other Lamar Period Sites.

Comparisons between paleoethnobotanical assemblages focused upon three Lamar Period sites (Sugar Creek, Carroll Village, and Lindsey) located in the uplands of the Middle Oconee River Basin (Bonhage-Freund 1990). Archeological components discovered at these sites and included in the present analysis are: (1) the Iron Horse Phase at the Sugar Creek Site (9Mg4); (2) the Dyar Phase at the Carroll Village Site (9Pm85); and (3) the Bell Phase at the Sugar Creek Site and

the Lindsey Site (9Mg231) (Bonhage-Freund 1990). For analytic purposes, the macroplant assemblages from these three sites were tabulated together with species density and species abundance used to describe the macroplant assemblages (Table 30).

Nutshell: Two hundred and eleven fragments of charred nutshell were recovered from 9He76. The assemblage included 7 fragments of oak acorn, 32 fragments of hickory nutshell, 45 fragments of black walnut nutshell, and 127 fragments of hickory/walnut nutshell. Black walnut was the most abundant specifically identified nutshell taxon in the 9He76 flotation samples (Table 29). The species density and overall abundance of nutshell at 9He76 was moderate, suggesting that nuts may not have been heavily utilized at this Lamar site. Nutshell was present at the rate of 7.0 fragments per liter of processed soil, or 0.2 gm per liter. On the other hand, 41 percent of the total macroplant assemblage consisted of these four nut taxa, which were also highly ubiquitous.

By contrast, large quantities of nutshell were recovered from the Sugar Creek, Carroll Village, and Lindsey sites. Fifteen thousand six hundred and sixty-two fragments of nutshell that weighed 157.11 gm were identified from the 30 liters of analysed light fractions from these three sites (Bonhage-Freund 1990). The species density of nutshell was high; 522.1 fragments of nutshell were collected for each liter of analyzed soil (5.2 gm per liter of soil). The high density from these Oconee Sites was in marked contrast to the species density of nutshell from 9He76 (7.0 fragments or .2 gm per liter).

Ninety-nine percent of the recovered nutshell from these sites was hickory. Four other nutshell taxa were recovered and included acorn, beechnut, black walnut, and the walnut family. These four nut types comprised less than 1 percent of the recovered nutshell when they were tallied together. The nutshell assemblage from these three Oconee River sites was typical of Eastern Woodland prehistoric sites and contrasted with the assemblage from 9He76. These differences suggest that the nut utilization of Lamar Period peoples varied over time and space.

Cultigens: Twelve charred corn kernels and 262 charred corn cupules were recovered from 9He76. Corn was the only cultigen present in the macroplant assemblage, and made up 53 percent of the total plant assemblage by count. It's percentage was much higher if it was considered without the nutshell. Corn comprised 85 percent of the seeds by count less the nutshell. The species density of corn at 9He76 was also fairly high, with 7.8 corn cupules and kernels recovered from each liter of floated soil. The density and abundance of the corn cupules and kernels suggested that this cultigen was a dietary staple at 9He76. Additionally, the presence of corn cupules in the macroplant assemblage implied that corn was grown in the site vicinity, since it is unlikely that stored corn would have been transported on the cob. The likely presence of maize gardening at 9He76 suggests that the site was probably occupied during the late spring and summer.

TABLE 30. Total Numbers and Species Abundance of the Charred Plant Remains from Three Lamar Period Sites**

Taxon	Number	Species Abundance (in percent)
Nutshell		Of All Nutshell
Acorns	51/6.42[a]	*
Beechnut	4/.02	*
Black Walnut	72/18.66	*
Hickory	15485/131.47	99
Walnut Family	1/.003	*
Unidentified	49/.54	*
Total:	15662/157.11	
Edible Wild Plants		Of All Other Seeds
Grape	22	2
Hackberry	2	*
Haw	1	*
Maypop	176	13
Persimmon	26	2
Sugarberry	2	*
Wild Cherry	1	*
Total:	230	
Inedible Wild Plants		
Bedstraw	1	*
Buffalo Bur	1	*
Bush Clover	1	*
Grass	2	*
Gromwell	4	*
Milkweed	1	*
Peppervine	14	1
Sassafras	1	*
Silky Cornel	2	*
Straw	3	*
Three Seeded Mercury	1	*
Total:	63	
Cultigens and Possible Cultigens		
Common Bean	10	1
Corn Cupules and Cobs	805	57
Corn Kernels	259	18
Cucurbit Scars and Seeds	14	1
Goosefoot	15	1
Peach	2	*
Ragweed	1	*
Sumpweed	4	*
Sunflower	1	*
Total:	1111	

KEY

* - Species abundance is less than 1%

[a] - Number/Weight in grams

**Compiled from Bonhage-Freund 1990

Nine cultigens and possible cultigens were recovered from the Sugar Creek, Carroll Village, and Lindsey sites (Bonhage-Freund 1990). These cultigens comprised 79 percent of the recovered seeds by count less the nutshell. Ninety-six percent of the cultigen remains consisted of corn cob fragments, corn cupules, and corn kernels. The overall abundance of corn at these three Lamar sites was nearly identical to that of the corn remains recovered from 9He76, suggesting that corn was as important to the Lamar Period inhabitants of the Oconee drainage as it was to the inhabitants of 9He76. The species density (37.0 cultigen remains per liter of soil) and the species diversity of the cultigen remains was much higher at the three upland Oconee sites than it was at 9He76. This difference possibly reflected differing degrees of macroplant preservation at the two sites rather than differing patterns of cultigen utilization, since the overall seed density at the three Oconee Lamar Period sites was much higher than it was at 9He76. The seed density of the combined macroplant remains from the Sugar Creek site, the Carroll Village site, and the Lindsey site was 46.8 seeds per liter, while the density at 9He76 was 10.3 seeds per liter.

Herbaceous plants: Ten seeds from three herbaceous weeds were recovered from the 9He76 flotation samples. These included six goosefoot seeds, three grass family seeds, and one purslane seed. These three taxa were all adventive weeds that favored disturbed habitats. Their presence in the site assemblage lends support to the contention that maize was grown at the site locality. The presence of these seeds at 9He76 probably represents the accidental charring of adventive weeds that were present in the site vicinity. However, it must be noted that goosefoot was highly ubiquitous at 9He76. Goosefoot was an important constituent of premaize garden systems throughout much of the Eastern United States. There is growing evidence that goosefoot, along with a number of other starchy and oily-seeded annuals, was an important garden crop in Woodland times (Asch and Asch 1985; Smith 1985a, 1985b; Yarnell and Black 1985). Unfortunately, the low numbers of goosefoot seeds that were recovered preclude any assessments of their economic importance.

Small numbers of twelve species of inedible wild plants were recovered from the Sugar Creek, Carroll Village, and Lindsey sites (Bonhage-Freund 1990). All of these taxa comprised less than two percent of the recovered seeds from these sites. The greater diversity of herbaceous plants at these Oconee sites relative to the forms recovered from 9He76 is probably a function of preservation rather than of differences in plant utilization, since most of these seeds were probably accidentally charred.

Fleshy fruits: Three fleshy fruit-producing species: grape, persimmon, and bramble, were present at 9He76. All three of these species probably grew on or near the site. The most common member of this group was persimmon, which made up two percent of the seeds by count. Persimmon was frequently dried and stored by Southeastern Indians (Swanton 1946: 285, 373) and ripened from September through October (Radford, et al: 826). Grapes ripened from September through October (Radford, et al 1968: 695) and were frequently dried and stored by

Historic Indians in the Midwest (Yarnell 1964: 65). Brambles ripened from mid-summer through the fall and were used for a wide variety of purposes by Historic Indian groups.

The fleshy fruit assemblage from the Oconee Lamar Period sites was very similar to that from 9He76, except that it exhibited a greater diversity of plant remains.

Summary

Testing excavations at 9He76 revealed Early and Middle Archaic, Middle Woodland, and Late Mississippian (Protohistoric?) components. Spatial differentiation between the Archaic and Woodland components and the focus of the Mississippian occupation is evident. Feature preservation, at least in the Mississippian site area, appears to be very good. This component appears to date to the Late Mississippian, and possibly Protohistoric, phase. It's diagnostic characteristics are similar in some respects to those of the Lamar Phase in the Georgia piedmont, as well as the Avery complex from eastern Alabama. These attributes may indicate a distinctive phase, however, the data revealed by the testing investigations is too preliminary to present the attributes of such a phase.

In Chapter VII site significance and recommendations pertaining to Site 9He76 are discussed on pages 226 and 233, respectively.

Site 9Tp867

Site 9Tp867 is located on a narrow terrace that juts into the lake just north of the confluence of Yellowjacket Creek. A large percentage of this site lies permanently beneath the lake, and only the highest elevations of the terrace are exposed during low lake levels (Figure 39). Severe erosion has removed all of the original soils and today the site consists of a series of low lying sand ridges that were deposited during stable lake levels. These ridges were classified as Primary, Secondary, Tertiary, or Minor depending on their size and location on the terrace. Primary, Secondary, and Tertiary ridges all traveled unbroken along the shoreline, and are believed to represent relatively long periods of stable lake levels. Conversely, Minor ridges travelled only short distances and were relatively small compared to the other ridges. These ridges are the result of relatively short term lake level fluctuations. The distribution of each beach ridge type found at Site 9Tp867 is illustrated in Figure 40. The area of the terrace that contains the site is at an elevation of about 192 meters NGVD and is completely inundated during most of the year. During the 1989 field season, approximately 1.43 hectares (3.5 acres) of this site were exposed by the lake draw-down and subject to investigation.

Corps of Engineers archeologists discovered Site 9Tp867 in 1986 during low water and reported that portions of features remained intact. Also, large

Figure 39
Site 9Tp867 Elevations

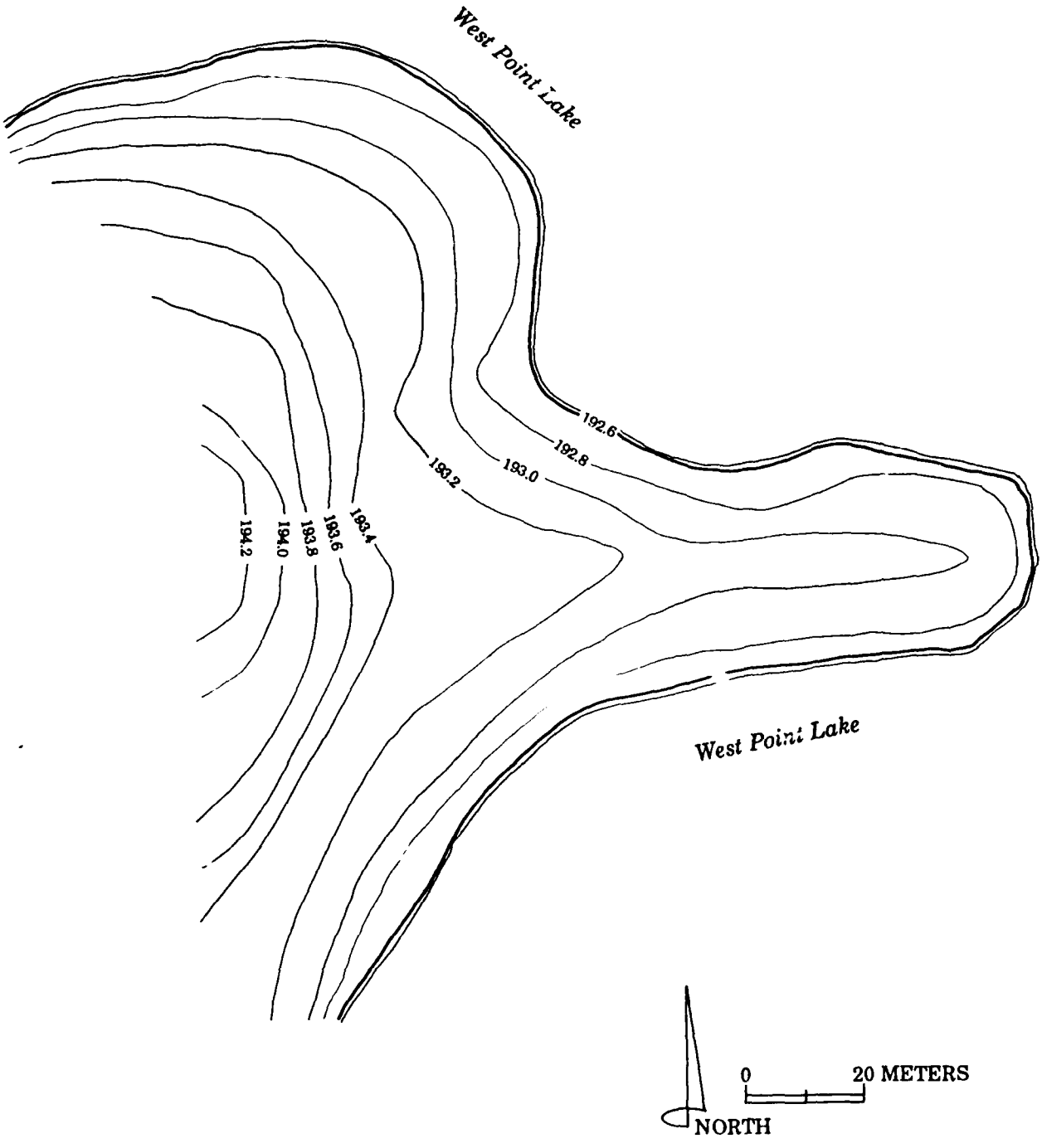
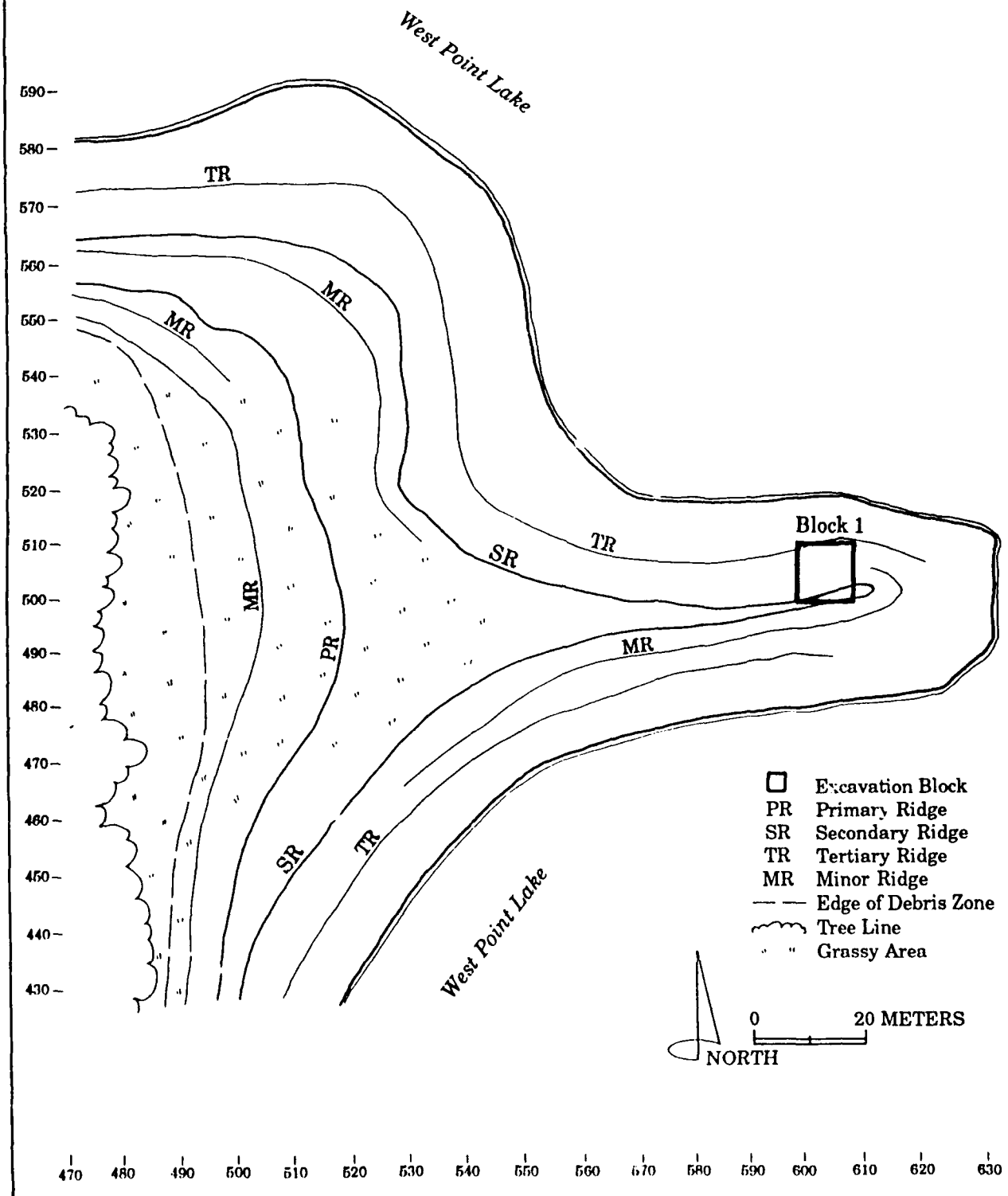


Figure 40
Site 9Tp867 Beach Deposits



quantities of aboriginal material were observed along the beach sand ridges. Materials collected by the Corps of Engineers included brushed and incised pottery sherds identifiable to a seventeenth to eighteenth century Creek occupation and a small quantity of Euro-American ceramics dating to a contemporary period.

The 1989 Investigation

Archeological testing of Site 9Tp867 began on January 23 and concluded on January 27, 1989. As per the scope-of work, the principal means of testing this site included a controlled surface collection, excavation of all cultural features, and the excavation of a 10 by 10 meter strip block whereby the recent alluvium would be removed for the inspection of additional cultural features.

Surface Collections at 9Tp867

The surface collection proceeded by constructing a ten meter grid over the site area extending from the wood line to the beach. A total of 137 whole or partial 10 by 10 meter units were collected during this stage of the operation. In units intersecting major ridges, the artifact densities were extremely high, while the remaining units exhibited very low artifact densities. Erosion of the soils in these later units exposed the subsoil over much of the site area.

A total of 2,910 pottery sherds, 21 projectile points and/or point fragments, 130 bifaces, 11 unifacial tools, three cobble tools, 31 cores, and 2,084 pieces of debitage were recovered at Site 9Tp867 in 1989 (Tables 31 and 32). Diagnostic ceramics are identifiable to the Early Historic Creek Period, with the majority of the sherds exhibiting diagnostic traits including folded and finger pinched rims, and brushed and incised surface treatments. Five identifiable hafted bifaces/projectile points were collected including LeCroy (N=1), Otarre (N=2), and Madison Triangular (N=1) types, indicating an Early and Late Archaic, and Late Mississippian or Historic Creek occupation of the site.

Historic Material Discussion

Twenty historic sherds were recovered from the surface collections at 9Tp867: five hand-painted pearlware sherds, four embossed patterns pearlware edgedware sherds, four interior/exterior blue transfer printed pearlware sherds, three alkaline glazed stoneware sherds (one with an exterior salt glaze), two plain pearlware sherds, one green impressed curved lines pearlware edgedware sherd, and one annular pearlware sherd. Two fragments of olive green bottle glass were also recovered.

Taken as a whole, the ceramics indicate an occupation span of circa 1810 to 1830, contemporary with the terminal years of the Creek occupation of the project area. Pearlware was first manufactured in Great Britain in either the mid 1770s or early 1780s (Siedel 1990), and continued to enjoy popularity through the second

and third decades of the eighteenth century. Hence, the pearlware sherds are considered to date to the period from circa 1774 to 1825. Alkaline-glazed stoneware, however, was a southern innovation, generally not recognized prior to circa 1820. The origin of this ceramic type was found in Edgefield County, South Carolina, where alkaline-glazed wares are believed to have been discovered following experimentation by several potters in the late 1810s and early 1820s (Burrison 1983). While alkaline-glazed stoneware was manufactured in Georgia, the transposition of this ceramic technology to the eastern portions of the state is generally not recognized before the 1830s. The appearance of the salt-glazed exterior and alkaline-glazed interior on one sherd is unusual, since these two traditions were generally not found in association. Salt-glazing represents a much earlier technological innovation (dating back to the fifteenth century), and the co-occurrence of these two glazing techniques could indicate vessel production in the early experimental period of alkaline-glazed stoneware production. The other two alkaline-glazed sherds exhibit an glossy light green exterior glaze found on Edgefield vessels, although not exclusive to that pottery district. Hence, all of these sherds could have been produced in Edgefield during the 1810 or 1820s or perhaps in Georgia in the 1830s, and together with the appearance of the pearlwares, these ceramics suggest an 1810s to 1830s historic component at 9Tp867.

TABLE 31. Site 9Tp867 Ceramics Recovered By Controlled Surface Collection

	Ceramic Form				
Surface Treatment	Rim	Body	Shoulder	Totals	%
Bold Incised	21	88	0	109	3.7
Medium Incised	9	36	0	45	1.5
Fine Incised	1	8	0	9	0.3
Punctate/Incised	0	4	0	4	0.2
Punctate	2	1	0	3	0.1
Finger Pinched	16	2	0	18	0.6
Brushed	0	258	1	259	8.9
Plain	84	2355	2	2441	83.9
Complicated Stamped	0	4	0	4	0.2
Check Stamped	0	1	0	1	0.0
Simple Stamped	0	1	0	1	0.0
Unmodified	3	0	0	3	0.1
Eroded	4	7	0	11	0.4
Unidentified	1	1	0	2	0.1
Totals	141	2766	3	2910	100.0

TABLE 32. Lithics Recovered from Surface Collections at Site 9Tp867

	Raw Material					
	Quartz	Quartz Crystal	Chert	Metavolcanics	Granite	TOTALS
Debitage						
Primary	19					19
Secondary	37					37
Tertiary	1263	70	41	7		1383
Unidentified	418	18	1	3		440
Flake Blank	44	1				45
Shatter	153	6	1			160
Cores	26	5				31
Projectile Points	4	1				5
PPt Frags.	13	1	2			16
Bifaces						
Stage I	72	6			1	79
Stage II	49		2			51
Unid. Biface						0
Drill						0
Mano						0
Hammerstone	3					3
Unifacial Tools	7	2	2			11
Unidentified						0
Totals	2108	110	51	10	1	2280
Percents	92.3	4.8	2.2	0.4	0.0	100.0%

Block Stripping

The information recovered from the surface collection operation indicated that the greatest artifact density occurred on the ridge nose overlooking the lake. In this area, a 10 by 10 meter block was excavated by removing the sandy secondary ridge, which yielded as much as 150 to 200 sherds in a single surface collection unit. The sands were no more than 20 cm thick at its deepest point and less than 10 cm over most of the block unit. The overburden was cleared to subsoil and the floor of the unit shovel shaved for close examination. No cultural features were observed in this unit.

Feature Investigations

The final phase of investigation at Site 9Tp867 involved the excavation of four dark circular stains that had been exposed by erosion at the eastern-most part of the ridge. The result of these investigations is presented below.

Feature 1

Feature 1 was a shallow, two to four cm deep, irregular shaped feature measuring 190 cm long and 130 cm wide. The gray black sandy fill inspected in the southern half of this feature contained no artifacts. The bottom was irregular with no evidence of purposeful preparation. The information obtained from the

cross-sectional view and the lack of any artifactual data was sufficient to document the non-cultural origin of this feature.

Feature 2

Feature 2 was a large, 110 cm long and 130 cm wide, grayish stain resembling an elongated oval. In the northwest corner of the feature, the soils were darker gray to black in hue. Several rock cobbles and a pottery sherd rested on it's surface. Removal of the fill dirt from the northwest half of the feature revealed a shallow and irregular shaped bottom with large root casts. No artifacts came from this feature's fill dirt. Evidence gathered during the profiling of this feature indicated that it was non-cultural.

Feature 3

Feature 3 was a dark, roughly diamond-shaped stain measuring 50 cm long and 50 cm wide. Two pottery sherds rested on it's surface. The feature was divided in half along the east-west axis and the south half removed for profiling. The absence of artifactual material and the presence of large amounts of wood charcoal taken from the profile indicated that this feature was the remnants of a burned tree root.

Feature 4

Feature 4 was a shallow, six to seven cm deep, oval shaped pit measuring 70 cm long and 50 cm wide. The feature was divided along the the east-west axis with the south half removed for profiling. Artifacts recovered from the south half of the feature included two plain smoothed body sherds, quartz and quartz crystal debitage, and fired clay pellets. Feature 4 was interpreted as a cultural feature; the only one observed on the site. The fill dirt from the north half of this feature was saved for future flotation analysis.

Summary

A controlled surface collection of Site 9Tp867 revealed the presence of Early and Late Archaic, Late Mississippian or Historic Creek, and possibly historic Euro-American components. Both the Early and Late Archaic components are represented by a low quantity of materials and appear to reflect brief occupations of the site. Conversely, the Historic Creek component is represented by a large quantity of aboriginal ceramics and the Euro-American wares recovered from this site are also attributed to this occupancy. Together, these historic sherds and the Creek ceramics comprise the vast majority of the site collection. Well documented manufacturing dates of the historic wares indicate that this latter occupation occurred just prior to the removal of the Creek Indians from the region. If the Creek occupation extended backward into the late 1700s, then this

location may have been visited by Benjamin Hawkins, an early explorer of the region who recorded the locations of Creek towns along the central Chattahoochee River Valley. Hawkins's possible association with Site 9Tp867 is discussed further in the Significance Evaluations section of Chapter VII. Also included in Chapter VII is a discussion on the present condition of the site, which summarizes the types of impacts West Point Lake has had on this resource.

Site 9He128

Site 9He128 is located on a broad sandy terrace in a bend of the Chattahoochee River. Potato Creek, a permanent flowing stream, flows into the river south of the terrace forming its southern boundary (Figure 41). The lake now covers the site during most of the year, except during periods of low lake levels. The effects of this inundation are most noticeable in the central portion of the site, where as much as 50 cm of topsoil have been eroded away resulting in a clay subsoil, mud flat area. Both the north and south ends of the site as well as a small "island" in the mud flat area, retains coarse sands over the red clay subsoil (Figure 42). The area of the terrace that contains the site is at an elevation of about 192 meters NGVD and approximately 1.13 hectares (2.8 acres) of this site were exposed by the lake draw-down and subject to investigation.

Corps of Engineers archeologists recorded Site 9He128 in 1986 and made another visit in 1987 during a period of time when the lake level was abnormally low. During this second visit, a newly eroded section of the site was exposed, resulting in the discovery of a dense scatter of rock and ceramics. Several shovel test units, in the unaffected portion of the site, revealed a 30 cm thick deposit buried below several centimeters of recently deposited sands. An artifact collection made at the site included Chattahoochee Roughened pottery sherds in addition to possible Archaic and Woodland period artifacts.

The 1989 Investigation

Archeological testing of Site 9He128 began on January 28 and concluded on February 5, 1989. As per the scope-of work, the principal means of testing this site included a controlled surface collection of the beach area, shovel testing in the interior of the site, and the excavation of 2 by 2 meter units in areas considered most likely to contain intact buried deposits.

Surface Collections at 9He128

The surface collection proceeded by constructing a ten meter grid over the site area extending from the southern-most point along the beach to the wood line on the north end of the site. A total of 84 whole or partial 10 by 10 meter units were collected during this stage of the operation. Artifact density along the length of shoreline was very light with the greatest number of ceramics from any one unit never exceeding 12 specimens. Two units (570N/480E and 550N/490E) in the south

Figure 41
Site 9He128 Elevations

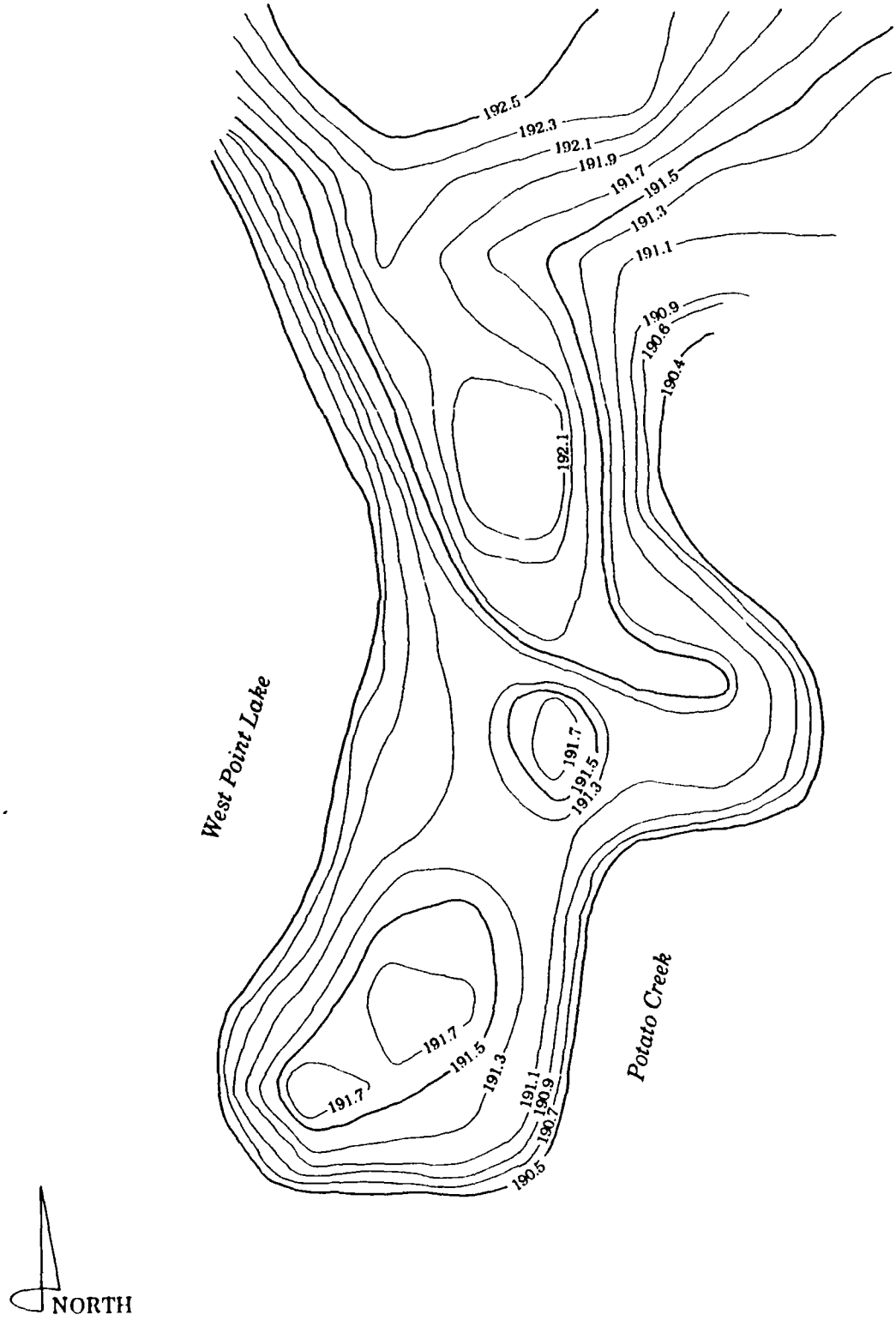
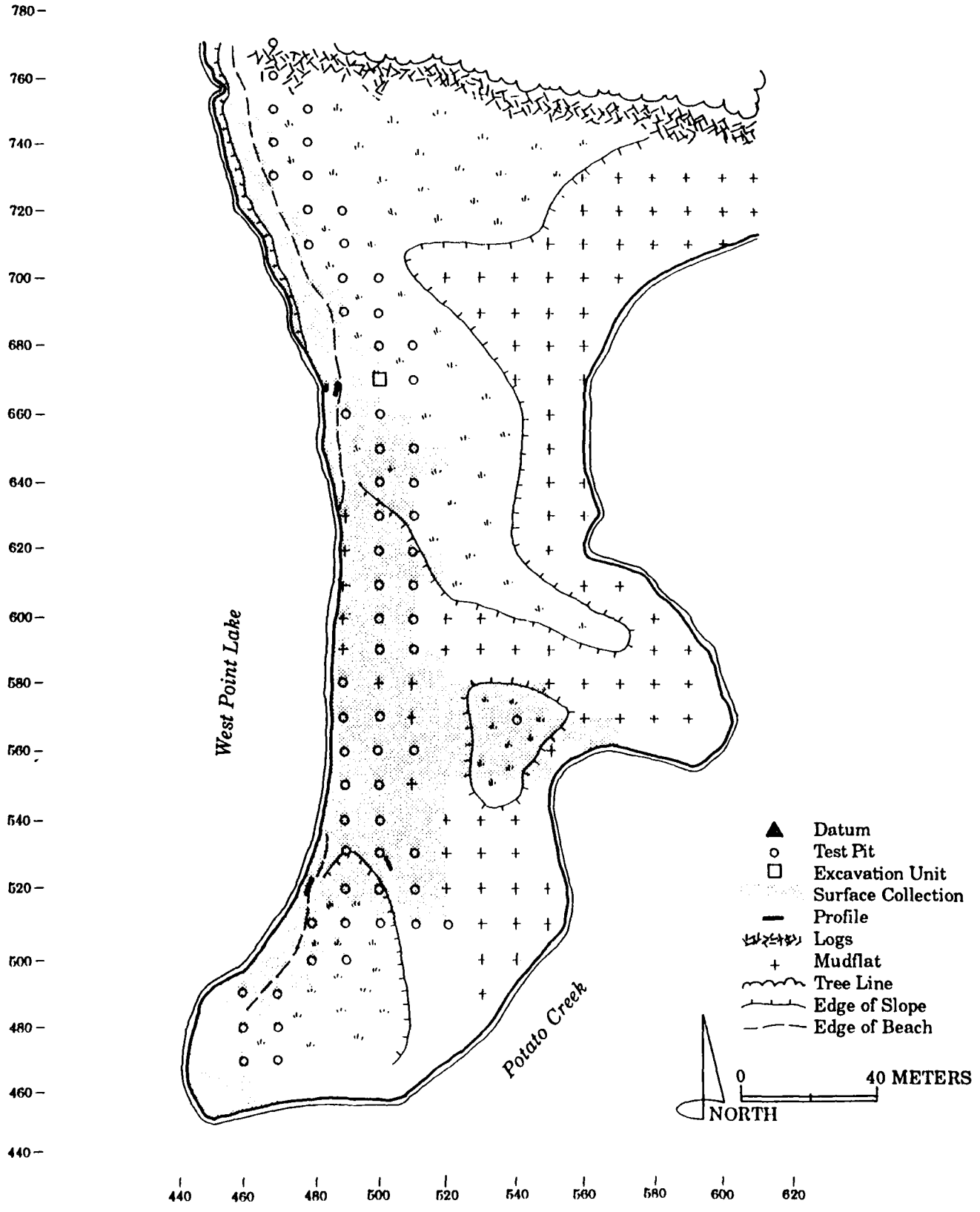


Figure 42
Site 9He128 Investigations



central mud flat area yielded 12 and 10 pottery sherds, respectively. The remaining units within this area yielded five or less sherds. On the northern end of the site, the overall sherd density increased slightly with five collection units (650N/490E, 680N/480E, 690N/480E, 750N/450E, 770N/450E) yielding between six and 11 specimens per unit. Of the 84 controlled surface collections established at the site, only 23 yielded ceramic material and 55 yielded lithics.

A total of 101 pottery sherds, three projectile points and/or point fragments, four bifaces, one unifacial tool, and 94 pieces of debitage was recovered at Site 9He128 in 1989 (Tables 33 and 34). Diagnostic ceramics are identifiable to the Early Historic Creek period with the majority of the sherds exhibiting diagnostic traits including brushed and incised surface treatments. Also, a small number of sherds in the collection exhibit Woodland period surface treatments including cord marking, simple stamping, and check stamping. Two identifiable hafted bifaces/projectile points were collected including New Market (N=1) and unidentified small Woodland Stemmed (N=1) types, indicating a Woodland period occupation.

TABLE 33. Site 9He128 Ceramics Recovered By Controlled Surface Collection

	Ceramic Form				
Surface Treatment	Rim	Body	Shoulder	Totals	%
Bold Incised		1		1	1.0
Medium Incised		1		1	1.0
Fine Incised					0.0
Punctate/Incised					0.0
Punctate		1		1	1.0
Finger Pinched					0.0
Brushed		6		6	5.9
Plain	8	72		80	79.1
Complicated Stamped		2		2	2.0
Check Stamped		3		3	3.0
Simple Stamped		1		1	1.0
Comb Marked		1		1	1.0
Cord Marked		2		2	2.0
Unmodified	1			1	1.0
Eroded		2		2	2.0
Unidentified					0.0
Totals	9	92		101	100.0

TABLE 34. Lithics Recovered from Surface Collections at Site 9He128

	Raw Material					
	Quartz	Quartz Crystal	Chert	Metavolcanics	Granite	TOTALS
Debitage						
Primary						0
Secondary						0
Tertiary	48	15	10			73
Unidentified	9	1	1			11
Flake Blank			1			1
Shatter	9					9
Cores						0
Projectile Points	1		1			2
PPt Frags.	1					1
Bifaces						0
Stage I	3					3
Stage II						0
Unid. Biface		1				1
Drill						0
Mano						0
Hammerstone						0
Unifacial Tools	1					1
Unidentified						0
Totals	72	17	13	0	0	102
Percents	70.6	16.7	12.7	0.0	0.0	100.0%

Shovel Testing Results

The shovel testing procedure at Site 9He128 followed the 10 meter grid pattern with shovel test units placed at the corners of the grid squares. The transects begin near the shoreline and proceeded in an easterly direction until two consecutive units yielded no cultural materials or an area was reached that precluded further testing. A total of 66 shovel test units was excavated at the site (Figure 42). Only five shovel test units, all of which were located south of the mud flat area, yielded cultural material. Two units (530N/490E, 560N/490E) yielded ceramics; two plain body sherds and a plain rim sherd. Lithics were found in four units (510N/490E, 510N/500E, 520N/500E, 560N/490E) and included small amounts of chert and quartz debitage.

Excavation Unit Results

A 2 by 2 meter excavation unit was located north of the mud flat area and east of a surface collection unit that yielded a number of ceramics and a Woodland projectile point. The first 10 cm level consisted of a dark brown (7.5YR4/4) moist clayey sand that was frequently mottled with a light yellowish brown (10YR6/4) sand. The clayey sand continued into the next 10 cm level, but large patches of yellow red (5YR4/8) clay was mixed with the sand in this level. The recovery of a plastic bottle cap in this level indicated the amount of disturbance occurring at this depth. Given the disturbed nature of these deposits, the remaining portion of

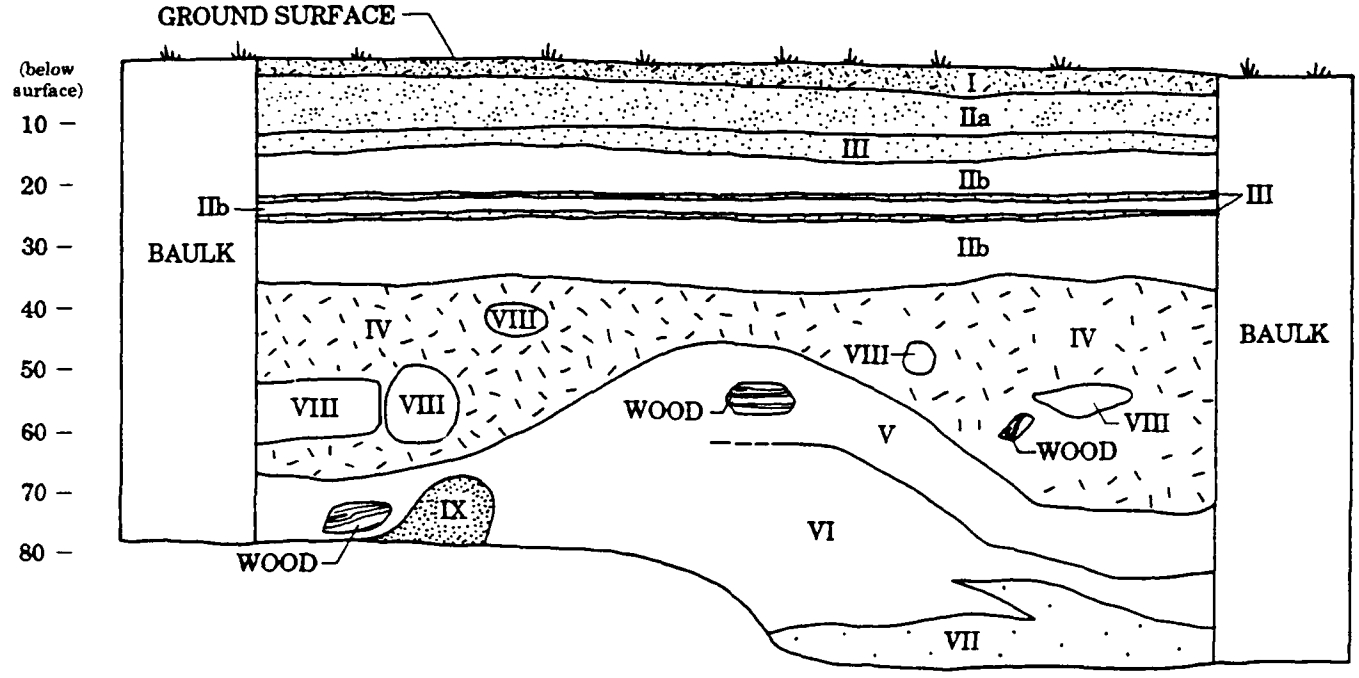
this soil unit was removed quickly in a 20 cm level. At approximately the 38 cm depth, a yellowish brown (10YR5/4) sandy clay deposit occurred where the upper sands peeled away from the lower deposit. In the south east corner of the unit, the presence of plow scars on the clay deposit were noted. A piece of styrofoam cup occurred at the interface of the sands and clay deposit. Below 38 cm the yellowish brown sandy clay continued, but was highly mottled with a light yellow brown (10YR6/4) clayey sand. Plow scars were noted once again at a depth of 48 cm and a number of historic artifacts including broken bottle glass and a shotgun shell were recovered. Below this depth only one half of the 2 by 2 meter unit was excavated into the deeper deposits. Although no artifacts were recovered from below a depth of 38 cm, the profile indicated that the soils in this vicinity were severely disturbed to a depth of nearly one meter. Decaying wood fragments increased in density towards the bottom of the excavation, which was terminated at a depth of approximately 90 cm below ground surface. The west profile of this unit is illustrated in Figure 43.

The second area designated for further investigation was south of the mud flat on the northern slope of the eroded sand ridge. This was the area that yielded ceramics and a Woodland period projectile point in the surface collection units and materials in several shovel test units. Before the excavation began, a three meter long section of the beach cut was profiled to inspect the soil stratigraphy at the southern end of the site (Figure 44). The soil profile along this stretch of beach was very complex and at the base of the profile just above the water line, was a dark yellow brown (10YR4/4) sand deposit that contained large reddish brown (5YR4/4) clay nodules similar to those found in the deeper deposits of Excavation Unit 1. The beach cut profile indicated that no intact soils remained at the south end of Site 9He128, and the work at this site was terminated.

Summary

The field investigations conducted at Site 9He128 yielded evidence for both Woodland and Historic Creek occupations. The materials representative all the occupations were thinly scattered across the site area and no spatial patterning was observed in the various components occurring at the site. Subsequent to the controlled surface collection procedure, subsurface testing including systematic shovel testing, excavation of a 2 by 2 meter excavation unit, and profiling of an existing beach ridge along the present day shoreline demonstrated extensive modification of the local landform caused by the lake. The types of impacts the lake has exerted on Site 9He128 and the significance evaluation of this site are presented in Chapter VII on page 226.

Figure 43
Site 9He128 Unit 1 West Profile

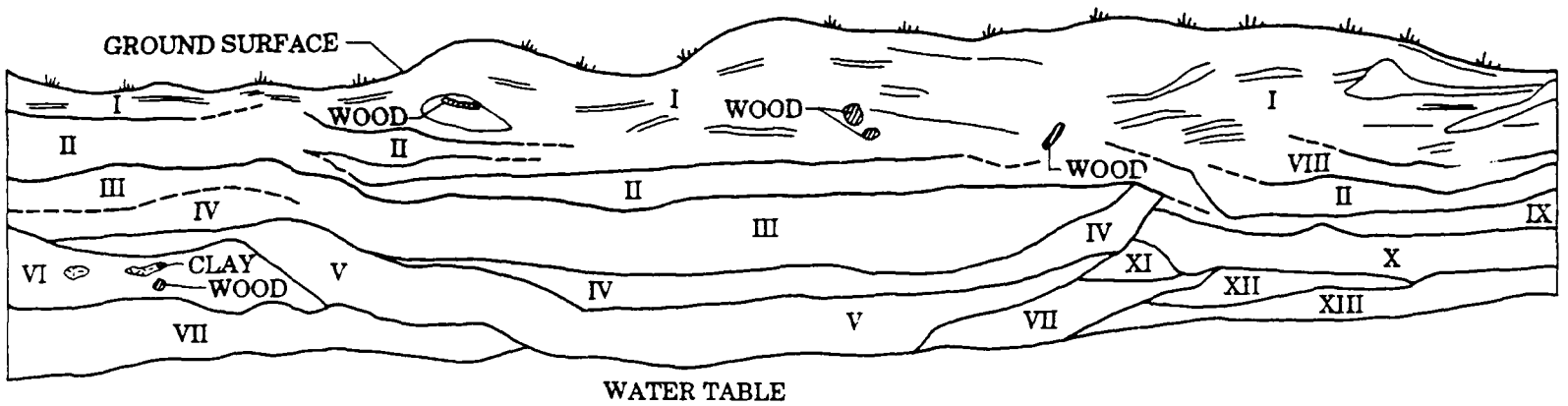


I - HUMUS, 10YR4/3 DARK BROWN SANDY CLAY LOAM
IIa - 10YR5/4 YELLOWISH BROWN SANDY CLAY, MOTTLES OF 2.5YR3/6 DARK RED CLAY
IIb - 10YR5/4 YELLOWISH BROWN SANDY CLAY, MUCH HIGHER CLAY CONTENT THAN IIa, COMMON MOTTLES OF 2.5YR3/6 DARK RED CLAY
III - 10YR5/4 YELLOWISH BROWN SANDY CLAY W/ LAMINATIONS OF 10YR6/4 LIGHT BROWN CLAYEY SAND
IV - A HIGHLY MOTTLED MIXED ZONE OF 10YR5/4 YELLOWISH BROWN SANDY CLAY AND 10YR6/4 LIGHT YELLOW BROWN CLAYEY SAND AND 7/5YR5/6 DARK BROWN CLAYEY SAND W/ OCCASIONAL MOTTLES OF VIII
V - 10YR4/2 DARK GRAYISH BROWN CLAYEY SAND
VI - 10YR4/4 DARK YELLOW BROWN CLAYEY SAND
VII - 10YR5/4 YELLOWISH BROWN SAND
VIII - 10YR4/2 DARK GRAYISH BROWN CLAY
IX - 5Y4/1 DARK OLIVE CLAY

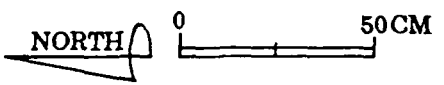
NORTH

0 20 CM

Figure 44
Site 9He128 Beach Profile



I - 10YR3/2 VERY DARK GRAYISH BROWN, HIGHLY MOTTLED AND STREAKED
II - 10YR3/2 VERY DARK GRAYISH BROWN MOTTLED W/ 10YR4/3 DARK BROWN W/ HIGHER CONCENTRATION OF CLAY
III - 7.5YR5/4 BROWN SAND
IV - 10YR5/3 BROWN SAND
V - 10YR5/4 YELLOWISH BROWN SAND
VI - 10YR4/4 DARK YELLOW BROWN SAND W/ NODULES OF 5YR4/4 REDDISH BROWN CLAY
VII - 10YR4/3 DARK BROWN SAND
VIII - 10YR5/4 YELLOW BROWN SAND
IX - 7.5YR5/4 BROWN SAND
X - 10YR5/4 YELLOW BROWN SAND
XI - 10YR3/2 VERY DARK GRAYISH BROWN SAND, STREAKED W/ LIGHT SAND
XII - 10YR4/4 DARK YELLOW BROWN SAND
XIII - 10YR4/3 DARK BROWN SAND



Site 9Tp294

Site 9Tp294 is located on a the end of a low lying ridge overlooking Whitewater Creek (Figure 45). The lake now covers the site during most of the year except during periods of low lake levels. The area of the ridge that contains the site is at an elevation of about 192 meters NGVD and approximately 0.46 hectares (1.15 acres) of this site were exposed by the lake draw-down and subject to investigation.

University of Georgia archeologists recorded the Site 9Tp294 in 1978 and the site was again visited in 1987 by Corps of Engineers archeologists. Materials collected form this site during the second visit included sand and grit tempered ceramics, incised pottery, a steatite sherd, and an Eva projectile point. Also, a midden (approximately 10 cm thick) exposed by lake-shore erosion was observed covering a portion of the site.

The 1989 Investigation

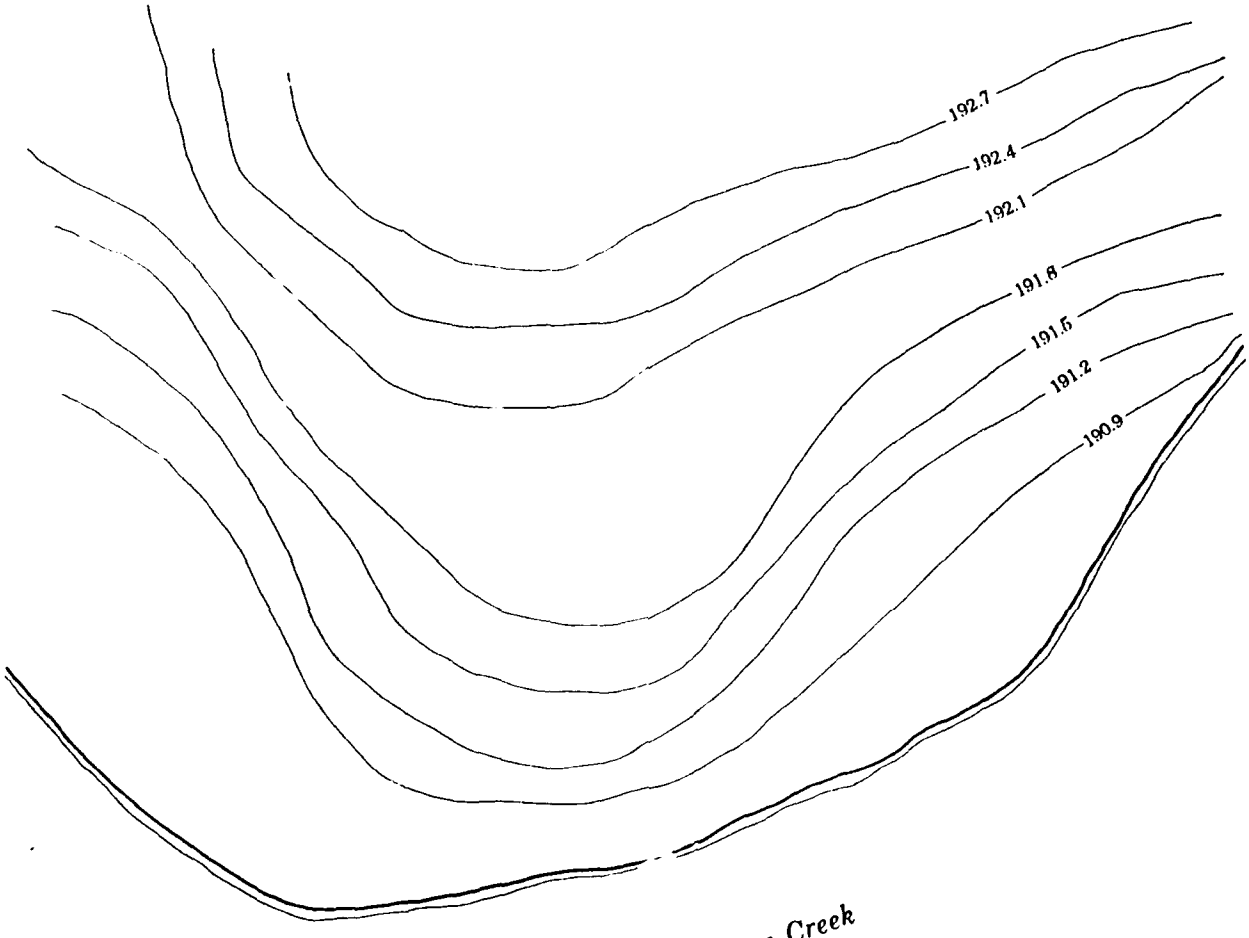
Archeological testing of Site 9Tp294 began on January 15 and concluded on January 19, 1990. As per the scope-of work, the principal means of testing this site included a controlled surface collection of the beach area, shovel testing in the interior of the site, and the excavation of 2 by 2 meter units in areas considered most likely to contain intact buried deposits.

Surface Collections at 9Tp294

The surface collection proceeded by constructing a ten meter grid over the site area extending from the beach on the south side to the wood line (Figure 46). A total of 95 whole or partial 10 by 10 meter units were collected during this stage of the operation. The distribution of artifacts across the site area was variable. The area of greatest ceramic density occurred in the northwest quadrant of the site between grid lines 200N to 220N and between 140E to 190E. To the south of this high density area, between grid lines 160N and 190N, another less dense ceramic cluster occurred in the central portion of the site. Conversely, the greatest density of lithic artifacts corresponds to the erosional sand ridges along the length of the upper edge of the shoreline. Several of the surface collection units that intersected these sand ridges yielded between 200 to 300 lithic artifacts. Judging from the distribution of artifact types, lithics are subject to faster down-slope movement than ceramics and are more likely to be found in recently deposited sand ridges.

A total of 352 pottery sherds, 40 projectile points and/or point fragments, 44 bifaces, one unifacial tool, and 4440 pieces of debitage were recovered at Site 9Tp294 in 1990 (Tables 35 and 36). Diagnostic ceramics are identifiable to the Woodland and Late Mississippian Lamar period with the majority of the diagnostic sherds exhibiting traits including incised and complicated stamped surface treatments. Also, a small number of sand tempered sherds in the

Figure 45
Site 9Tp294 Elevations



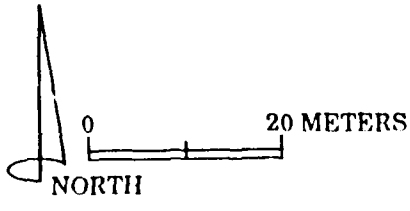
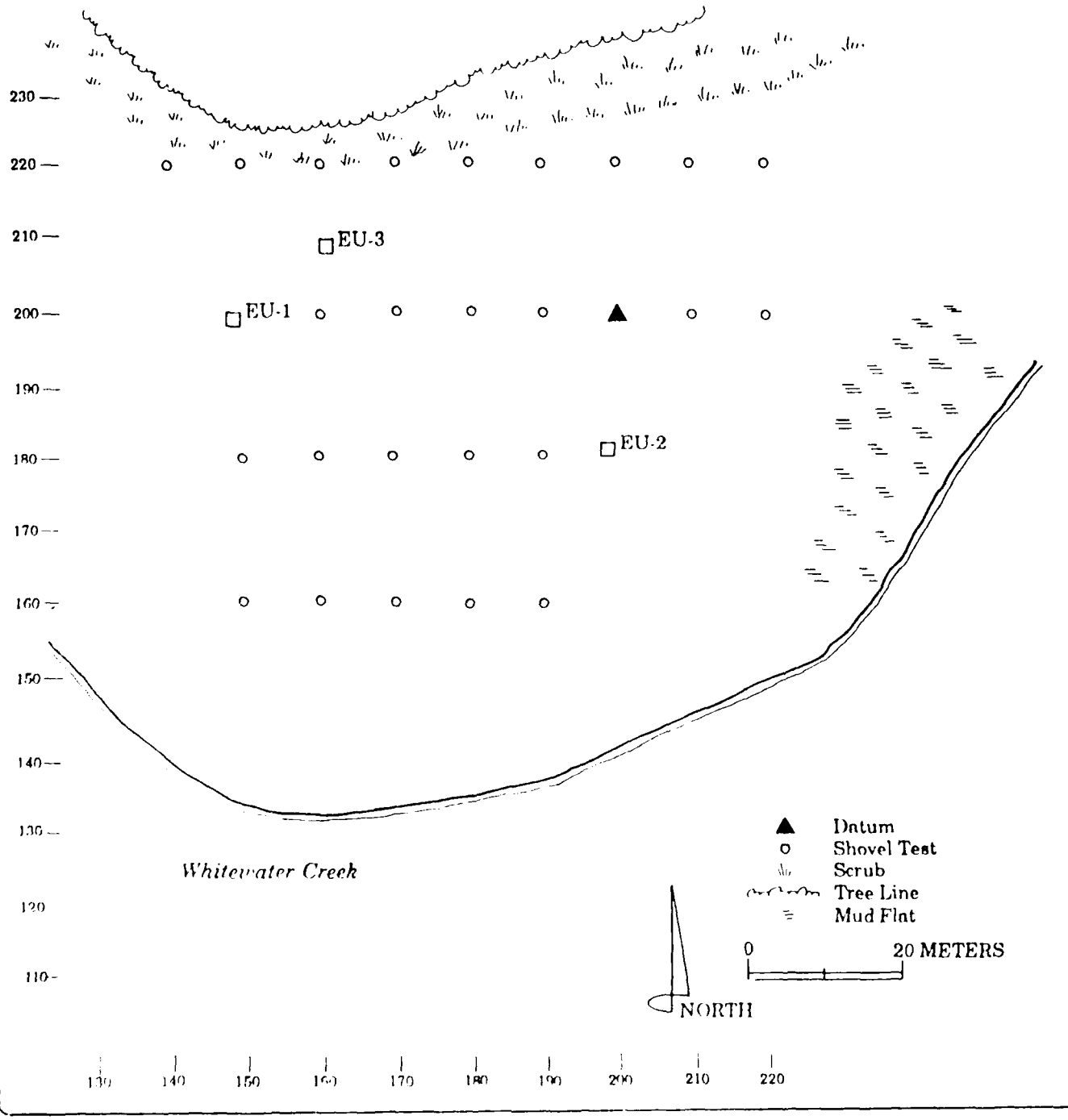


Figure 46
9Tp294 Investigations



collection indicate a Woodland period presence at the site. Fifteen identifiable hafted bifaces/projectile points were collected including Palmer (N=1), Guilford (N=1), Morrow Mountain (N=6), McIntire (N=1), Otarre (N=3), Pedernalis (N=1), and Madison (N=2) types, indicating an Early Archaic through Woodland, and Late Mississippian occupation of the site. The intensive occupation of Site 9Tp294 during the Middle and Late Archaic periods may account for the relatively large amounts of debitage recovered during the testing operations. Unfortunately the present investigation was unable to isolate individual components to confirm this hypothesis.

Site 9Tp294 is the one site investigated during the present project that was located along a tributary of the Chattahoochee River and not along the main channel. Besides it's distinctive location in relation to the other sites, it yielded the largest quantities of primary and secondary debitage indicative of initial lithic reduction processes. The other sites investigated during the 1989 and 1990 field seasons all exhibited patterns of final stage reduction with little evidence of initial core or biface manufacture. Future studies focusing on raw material procurement and lithic reduction strategies may find that a dichotomy exists between sites located along the main river channel and those located on smaller tributaries.

TABLE 35. Site 9Tp294 Ceramics Recovered By Controlled Surface Collection

	Ceramic Form				
Surface Treatment	Rim	Body	Shoulder	Totals	%
Bold Incised	1	10		11	3.1
Medium Incised		4	1	5	1.4
Fine Incised		1		1	0.3
Punctate/Incised		1		1	0.3
Punctate	1	1		2	0.6
Finger Pinched	1			1	0.3
Brushed					0.0
Plain	11	291		302	85.8
Complicated Stamped		10		10	2.8
Check Stamped					0.0
Simple Stamped					0.0
Comb Marked					0.0
Cord Marked					0.0
Roughened		2		2	0.6
Unmodified		5		5	1.4
Eroded	1	11		12	3.4
Unidentified					0.0
Totals	15	336	1	352	100.0%

TABLE 36. Lithics Recovered from Surface Collections at Site 9Tp294

	Raw Material					
	Quartz	Quartz Crystal	Chert	Metavolcanics	Granite	TOTALS
Debitage						
Primary	12					12
Secondary	1546	26	53			1625
Tertiary	2537	82	126			2745
Unidentified	36		1			37
Flake Blank	19					19
Shatter	2					2
Cores	32					32
Projectile Points	12		3			15
PPt Frags.	21	2	2			25
Bifaces						
Stage I	31					31
Stage II	10		1			11
Unid. Biface	2					2
Drill						
Mano						
Hammerstone	6				1	7
Unifacial Tools			1			1
Unidentified	12					12
Totals	4278	110	187	0	1	4576
Percents	93.5	2.4	4.1	0.0	0.0	100.0%

Shovel Testing Results

To further examine the aerial extent of the midden previously reported at the site, shovel test pits were excavated along the 160, 180, 200, and 220N grid-lines at a 10 meter interval. A total of 26 shovel test units were excavated with 14 yielding artifacts. Three units (160N/160E, 180N/180E, 200N/170E) yielded ceramics consisting of seven plain body sherds and a bold incised sherd. All 14 shovel test units contained lithic debitage. A dark soil horizon was encountered in almost all of the test units extending across the site area, which consisted of a hard compact sandy layer with organic material. Examination of this dark soil horizon proceeded by placing three 2 by 2 meter units in areas exhibiting both high artifact densities and the buried dark soils.

Excavation Unit Results

Three areas were selected for further testing by 2 by 2 meter excavation units (Figure 46). The first area examined was along the western edge of the site where erosion had removed the overlying soil deposits and exposed a portion of the dark soil horizon. Excavation Unit 1, placed grid point 200N/150E, revealed a thin sandy deposit overlaying a 10 cm thick dark brown (7.5YR3/4) silty loam. This loam was very compact and contained numerous fragments of decaying organic material. At the base of the loam was red clay subsoil, which exhibited disc plow scars on it's surface. Artifacts recovered from the upper-most sandy deposit

consisted of quartz and chert lithic debitage. No cultural material was recovered from the silty loam deposit.

The second area examined by test excavation was located at grid point 180N/200E, which represented an area containing a large number of artifacts recovered during the surface collection. Excavation Unit 2, placed at this location, encountered the same soils as described for Excavation Unit 1 and reached subsoil at a depth of 27 cm. Once again plow scars were noted in the surface of the red clay. Artifacts in this unit were evenly distributed throughout the two soil deposits with the predominant artifact type represented by lithic debitage (N=100). In addition to the debitage four plain smoothed body sherds and three eroded body sherds were recovered in the silty loam horizon.

The third area investigated was located in the area of highest sherd density. Excavation Unit 3, placed at grid point 210N/160E, exhibited the same soil profile as the previous two excavation units, and was excavated to a depth of 26 cm. The silty loam deposit in this area was extremely compact and contained burned and decomposed wood fragments. Plow scars were observed below this deposit and intruded into the red clay subsoil. Artifacts were distributed throughout the sandy overburden and the silty loam deposit and included 38 pieces of quartz and chert debitage and 12 plain pottery sherds.

Summary

Site 9Tp294 is the only site investigated during the present project that is not located along the main channel of the Chattahoochee River but instead is situated on a small ridge overlooking Whitewater Creek. Interestingly, this site yielded the largest quantity of Archaic materials recovered during the recent investigation. The abundance of Archaic materials on this site as opposed to the scant remains observed on sites located in the main valley suggests the wide divergence in adaptations used by Archaic and post-Archaic populations inhabiting the region. While the intensity of the occupation changed, Site 9Tp294 continued to be used during the Woodland and Mississippian periods as reflected by smaller quantities of lithic tools and ceramics. Separation of the various components observed at the site was not possible possibly due to the disturbances caused by the lake. The types of impacts which have occurred at the site as well as a discussion of site significance are presented in Chapter VII on page 226.

VI. CULTURAL SYNTHESIS AND CHRONOLOGY

As noted in the preceding chapters, the cultural chronology of west Georgia is not as fully developed as other regions of the state, and the project area in particular is poorly understood. One of the goals of the current project was to develop as completely as possible a cultural overview and research statement for this region, utilizing the findings of previous investigations as well as the results of the current project. This chapter presents this regional chronology, synthesis, and research design. For the purposes of this synthesis, the study area is considered as the Middle Chattahoochee region, which in turn is defined as the area extending from the fall line near Columbus to the vicinity of Atlanta. All of the area under consideration is within the piedmont physiographic province, and within western Georgia. This area as a whole has received a degree of archeological research in the past, and this previous research is the first topic of consideration in this chapter.

PREVIOUS ARCHAEOLOGICAL RESEARCH

The earliest reported research along the Chattahoochee below the fall line was that conducted by Clarence B. Moore (1907), while at approximately the same time Peter Brannon (1909) was working in the Columbus, Georgia area both below and above the fall line. Both of these early investigators were primarily interested in large, mound sites, and their efforts have contributed little to our understanding of the regional prehistoric sequence.

The advent of "modern" archeology within the Middle Chattahoochee River region was recognized with the Works Progress Administration (WPA), when Wauchope extended his WPA era survey of northern Georgia into the present project area (1966). Minor work was done in Heard County, but most of his work of relevance to the Middle Chattahoochee Valley area was conducted further upstream in Douglas, Fulton, and Cobb counties. Patterson (1950) briefly reports WPA era work at the Bull Creek site just south of Columbus. At approximately the same time, Wesley Hurt of the Alabama Museum of Natural History surveyed the Alabama side of the Chattahoochee Valley from the Florida line to Phenix City, Alabama (DeJarnette 1975). These studies began to contribute information on site distribution and characteristics, although in a preliminary and rudimentary fashion.

During the 1950s, a considerable amount of research was conducted in the region of the Chattahoochee just below the fall line. David Chase (1955, 1959, 1963) reported on work in the Fort Benning area; Charles Fairbanks (1955) reported on excavations at the Abercrombie Mound in Russell County, Alabama; and Joseph R. Caldwell (1955) reported on investigations at Rood's Landing in Stewart County, Georgia. Additional work below the fall line was directed at the Walter F. George Reservoir on the Chattahoochee in Alabama in the early 1960s (DeJarnette

1975; Kelly et al. 1962). This work provides the basic framework for the understanding of lower Chattahoochee prehistory. Further to the south, Jenkins (1978) has provided an overview of Lower Chattahoochee prehistory from a Houston County, Alabama perspective.

The work at Walter F. George has been critical to the development of a Lower Chattahoochee chronology, and thus by extension is relevant to the Middle Chattahoochee. Frank Schnell, Vernon Knight, and Gail Schnell (1981) reported excavations at the important Cemochechobee mound center located at the Walter F. George dam. Work at this site yielded considerable new information concerning the Rood's phase, an Early to Middle Mississippian culture on the Chattahoochee. Based on years of research in the Columbus area and the excavations at Cemochechobee, Frank Schnell then developed a ceramic chronology of the Lower Chattahoochee Valley (1981:21-23). This chronology forms the basis of our present understanding of area prehistory, with revisions offered by Knight and Mistovich (1984) on the basis of a resurvey of portions of the Walter F. George Reservoir and subsequent testing phase excavations (Mistovich and Knight 1986). Research at Fort Benning, near Columbus, including Thomas et al.'s (1983) survey of portions of the fort, Braley and Wood's (1981) survey, and Schnell's (1982) testing research, also contribute to our understanding of prehistoric culture immediately to the south of the project area.

To the north of Columbus, McMichael and Kellar's (1960) work in the Oliver Basin, located on the Chattahoochee between the fall line at Columbus and West Point Lake, and thus within the Middle Chattahoochee River Valley, is directly relevant to the development of a regional chronology. Although the excavations in Oliver Reservoir were modest by today's standards, the results are important to our understanding of piedmont prehistory.

Further upriver, Brockington and Associates (Eric Poplin personal communication 1990) have recently excavated three well-preserved Lamar sites in Douglas County, Georgia on Dog River near its confluence with the Chattahoochee. Although the final report of these excavations is not yet complete, these results should have direct bearing on questions of late prehistory in the Middle Chattahoochee Valley area and should be incorporated into future regional overviews.

Given the age of the studies at Lake Oliver and the scale and sporadic nature of more recent investigations (see below), the archeological studies undertaken with the construction and maintenance of West Point Lake offer some of the most substantive research from the region. The first major report on archaeological research at West Point Lake was produced by Harold Huscher (1972). Apparently no survey report was ever completed for the reservoir, but Huscher reports investigations at fifteen sites in the lake, ranging from extensive excavation to surface collection. The Burnt Village site, the eighteenth century Creek town of Okfuskenena, received the most attention at this time, and limited work was conducted on five other sites with eighteenth century components (9Tp2, 9Tp35, 9Tp24, 9Tp25, and 9He10). Additional explorations were carried out at the

Park Mound and Avery Mound sites (both Lamar Mississippian), the Carter Glass Site (9Tp16 - Woodland), the S. J. Bowers site (9Tp 40 - Averett - not excavated), 9Tp65, a multicomponent Archaic and Woodland site, the Moody Bridge Road Mound (9Tp66 - found to be an erosional remnant), and 9Tp67, 9Tp68, and 9Tp69 (all poorly known and not excavated). Although Huscher's report was limited in scope, several of the sites are reported well enough that components can be identified today.

Working in the late 1970s, James Rudolph conducted a shoreline survey after the reservoir was completed, which located 734 sites in Public Use Areas of the lake (Hally and Rudolph 1982). Unfortunately, the site collections made from this survey were rather small, and the ceramics were often badly eroded, making component identification difficult, if not impossible. Most of the sites recorded by this survey are listed as either Unknown non-ceramic or Unknown ceramic, while others are listed by generic terms such as Early Archaic or Middle Woodland. Specific components, such as Kirk or Cartersville, are almost never listed for any site, making a reconstruction of the culture history of the reservoir based on this data difficult.

A few additional small cultural resource management/compliance projects have been conducted in the immediate area since the completion of the reservoir. Cottier, Sheldon, and Waselkov (1981) surveyed a 107 acre tract for Boy Scout Camp Gallent near the junction of Wolf Creek and West Point Lake, locating seven (7) sites. Although much of their collections were poorly weathered, some specific components were identified.

Crook (1984) surveyed two tracts in the West Point Wildlife Management area, locating five post-1880s tenant farmsteads, but no prehistoric sites. Lee (1978) examined a proposed borrow pit in a public wildlife recreation area, but found only one prehistoric activity locale with undiagnostic lithics. Additional work was conducted for the city of LaGrange (Schnell 1980, 1982; Steinen 1979), the city of Franklin (Crook and Carroll 1981), and Oglethorpe Power Corporation transmission lines (Smith 1987; Gresham 1988). These small projects produced primarily undiagnostic lithic scatters, or occasionally some eroded sherds. One definite Middle Archaic site (Smith 1987) and one Middle Woodland Cartersville site (Gresham 1988) are the only diagnostic prehistoric components identified by these ancillary surveys. Additional information on the west Georgia piedmont in general is provided by Johnson (1980; 1981) who reported 244 prehistoric sites on the Fortson and O'Hara Transmission Lines in Heard, Coweta, Fayette, and Clayton counties.

From Alabama, Knight (1977, 1980) reports excavations in the Rother L. Harris Reservoir on the Tallapoosa River in the eastern Alabama piedmont. His findings from the next major drainage to the west are of considerable importance in understanding the prehistory of the Middle Chattahoochee.

Table 37 compares information on the prehistoric occupation of West Point Lake (Hally and Rudolph 1982:Table 6) with information developed for the occupation of the primarily upland regions investigated by the Forston and

O'Hara Transmission Line survey (Johnson 1980:Table 7). This data offers general information regarding settlement density by chronological period for the Chattahoochee River Valley and uplands, respectively.

TABLE 37. Site Distribution, West Point Lake Survey and Forston and O'Hara Transmission Line Survey

Period	West Point (Hally and Rudolph 1982)	Uplands (Johnson 1980)
Paleoindian	0	0
Transitional Paleo - E. Arch.		6
Archaic (General)	8	
Early	106	23
Early or Middle	10	
Middle	245	45
Mid or Late	13	
Late	95	20
L. Archaic or E. Woodland	5	
Total Archaic	482	88
Unknown Ceramic	150	
Woodland (General)	58	14
Early	3	
Middle	2	
Late	0	
Total Woodland	63	14
Mississippian (General)	8	10
Early	2	
Late	41	
Total Mississippian	51	10
Non Diagnostic		151
Total	746	269
Total Diagnostic	596	118

Together, these data yield a fairly reliable, although unfocused, picture of the distribution of sites in the Middle Chattahoochee Valley by chronological period. Both Johnson and Hally and Rudolph indicate a predominance of Archaic sites, and in particular those of the Middle Archaic, for the region. Johnson reports more transitional Paleo-Indian sites in the uplands than were recorded by Hally and Rudolph, although this may reflect a difference in nomenclature rather than distribution, since Hally and Rudolph and the present study recorded Transitional Paleo-Indian materials. Also noteworthy is the overall similarity in the distribution of sites by chronological period. In terms of the percentage

contribution of diagnostic sites, the Archaic accounted for 80.9 percent of the Hally and Rudolph (1982) sites and 74.6 percent of Johnson's (1980) sites.; the Woodland contributed 11 percent of the sites recorded for West Point Lake and 12 percent of the diagnostic upland sites; and the Mississippian accounted for 8.5 percent of identified site components for both Hally and Rudolph's (1982) and Johnson's (1980) surveys. While more Archaic, Woodland, and Mississippian sites were recorded by Hally and Rudolph than Johnson, (neither Hally and Rudolph nor Johnson separated eighteenth century contact sites from their Mississippian categories, although Johnson [1980:99] does have at least one site which produced Chattahoochee Brushed pottery), settlement preferences between the uplands and the river valley cannot be interpreted based on these survey results, since the surveys covered different areas. As sites at the survey level were only identified by cultural period (when possible) and not by functional type, it is not possible to state at present whether different sites types are focused on the uplands and river valley respectively (eg. procurement camps versus villages). Thus, the survey data currently available for the region contribute little beyond the identification of a presumed predominance of Archaic sites.

The remainder of this chapter presents a cultural chronology for the Middle Chattahoochee based on the existing data, syntheses of other Georgia and Alabama regions, and the results of the current project. This sequence follows the traditional period scheme, and should be recognized as preliminary, given the lack of detailed site data or stratified site excavations from the region.

THE PALEO-INDIAN

The earliest prehistoric occupation of west Georgia is the Paleo-Indian, generally placed within the 10,000 to 8,000 B. C. time span. Chronologies have been presented which further subdivide the Paleo-Indian into early, middle, and late (transitional) phases (O'Steen et al. 1986, Anderson et al. 1986), but such subdivision lacks confirmation based on secure excavations and site contexts (Meltzer 1988), and the Paleo-Indian is treated as a unit within this report, while recognizing the probable existence of a "transitional" phase. Paleo-Indian presence within the Southeast is recognized primarily on the basis of certain projectile points, which have been recovered mainly from surface contexts. These include the Clovis (a possible indicator of the Early Paleo-Indian), Suwanee, and Simpson types. Dalton projectile points are considered by some researchers as diagnostic of the Paleo-Indian Period, and by others as an Early Archaic artifact, but are treated within this chronology as a Transitional style. This assumption of cultural transition is based on environmental data and inferences more so than cultural artifacts, and recognizes that the late Paleo-Indian (ca. 8,500 to 7,900 B. C.) was a period of environmental changes associated with the termination of the Pleistocene Era, in which the boreal forest and fauna of the former were replaced by a ground cover and animal population similar to that known in modern times (Anderson and Joseph 1988; Goodyear 1982, Morse 1975). Goodyear (1974, 1982) also notes that certain characteristics of the Dalton technology, and in particular

the re-sharpening of tools to near exhaustion, suggests a change in Paleo lifestyles. Since the traditional Paleo-Indian subsistence economy was one which featured the tracking and hunting of big game, the extinction of such species at the close of the Pleistocene would suggest that smaller game species and a more regional hunting strategy and routine would have been implemented during any transitional phase, providing less opportunity to trade or directly procure preferred raw materials. This would have placed greater demand on existing tools and local raw materials, leading to the increase in re-sharpening as observed by Goodyear.

Hally and Rudolph (1982:9) note that fluted points are reported for the Lower and Middle Chattahoochee River areas, with a greater frequency below the fall line and a decrease within the piedmont. Anderson (1990) documents a Paleo-Indian presence in Chambers County, Alabama, which falls within the Middle Chattahoochee River Valley, but he does not give the details of this find. McMichael and Kellar (1960:88) report a possible fluted point and a planoconvex end scraper from site 1Le8 in the Oliver Basin to the south of West Point Lake, and DeJarnette (1975) illustrates two fluted points from the Walter F. George Lake, south of the fall line. Fluted points have also been reported for Russell and Houston counties, Alabama (DeJarnette et al. 1975; Hurt 1975:2; Jenkins 1978:75) and Clayton, Chattahoochee, and Early counties, Georgia (Hally and Rudolph 1982:9; Fish 1977:9; and Bullen 1975).

The present research recovered a possible transitional Paleo-Indian Dalton point from site 9He76, and Hally and Rudolph report that a possible Dalton point was found at site 1(UGA)Ch112. Anderson et al. (1989) record several Dalton points from Muscogee county below the fall line; the largest concentration being from the Carmouche Site (Gresham et al. 1985).

While the distribution of Paleo-Indian sites is too poorly documented to be considered as a research domain, Hally and Rudolph (1982) speculate that the apparent preference for coastal plain settings in Georgia over piedmont sites may be the product of enhanced environmental variation between the piedmont and coastal plain at the time of the Paleo-Indian occupation. Specifically, the environment of the coastal plain at that time was one characterized by a mixed forest and prairie community. Research in Illinois has suggested that Paleo-Indians focused their settlement strategy on base camps situated in ridgetop barrens and within proximity of bottomland swamps and prairies (Hally and Rudolph 1982:10). Such settings appear to have occurred within the coastal plain province during the Paleo-Indian phase, while the piedmont was more likely to have been heavily forested. Thus, Hally and Rudolph feel that the observed settlement distribution may be a projection of the area's ecology.

However, Anderson's model of Paleo settlement in the southeast indicates that settlement nodes were less likely to be the product of strict environmental adaptation (Anderson and Joseph 1988:100-102). He presents seven Paleo "concentrations" within the Southeast. These are focused both along the coastal plain and along the Cumberland Plateau formed behind the Great Smokey Mountains. For the former, settlement distribution appears to follow the coast

line with interior extensions along the major drainages, while the settlement distribution of the interior plateau appears more focused along drainages and drainage systems. Such settlement distribution is projected primarily from the surface finds of pure Paleo points, however, and does not consider the transitional Daltons. Anderson suggests a consistent gap between the coastal zone and those concentrations of the interior, which corresponds roughly with the piedmont (Anderson and Joseph 1988:101). He also indicate the absence of Paleo concentrations along the Alabama, Mississippi, and Louisiana coast, with the only Gulf Coast concentrations identified being those of west-central Florida. The Upper and Middle Chattahoochee Valley lies between Paleo concentrations as outlined by Anderson.

While settlement density within the Paleo-Indian period appears to have been sparse, and focused on mega-fauna such as the mammoth, bison, and giant tortoise, Paleo society appears to have been spatially mobile, and Charles (1986) suggests trade and/or migration networks of as much as 150 miles in length. Hence sporadic Paleo-Indian use and/or visitation of the Middle Chattahoochee Valley cannot be denied. O'Steen et al. (1986) and Anderson (Anderson and Joseph 1988:104) suggest that piedmont Georgia was on the fringe of Paleo settlement networks, as supported by the extensive re-use and re-sharpening of the few Paleo tools found within region. Conversely, given the piedmont's distance from both coastal plain and Ridge and Valley chert outcrops, the raw material sources preferred by the Paleo-Indians, it might be argued that the decreased density as well as the condition of Paleo tools found in the piedmont reflects greater curation and re-use of such artifacts in environmental settings distant from raw material sources. Such a view would suggest that those concentrations of Paleo points outlined by Anderson (Anderson and Joseph 1988) are indicative more of raw material sources than of actual settlement/mobility strategies, with the increase in diagnostic tool recovery reflecting the greater wealth of suitable raw materials within these concentrations and hence less curation and/or re-use of tools. It is worth noting that, based on studies of the Oconee Valley, O'Steen et al. (1986) note an increase in the frequency of Middle Paleo and Transitional Paleo sites, coupled with an increase in the use of locally available raw materials. The line of argument followed here would suggest that such increase does not directly reflect population growth, but rather indicates changes in raw material preference and use. Since Paleo-Indian points, and thus presumably Paleo-Indians, have been found within the piedmont, this suggests that this environment was exploited, perhaps on a seasonal basis, for resources not available on the coastal plain or Interior Plateau.

It is also possible that Paleo-Indian sites within the piedmont are being further under-represented by archeological survey techniques and environmental situations and consequences. In a study of the upper Oconee River Valley, O'Steen et al. (1986) identified 95 Paleo-Indian sites, and observed that settlement distribution was much more wide-spread than initially suspected. While Early Paleo sites were primarily identified within the floodplain, distribution appears to have extended areally over time, with upland and inter-riverine sites occurring by the Middle Paleo, and upland sites becoming the preferred locations by the

Transitional Paleo phase. Since archeological survey techniques traditionally favor intensive floodplain coverage at the expense of upland settings, it is possible that the piedmont uplands are not being examined rigorously enough to recognize what would most likely be ephemeral Paleo sites. Erosion of the uplands, and the hydro-turbation and scouring of piedmont river valleys, would also suggest a much lesser potential for Paleo-Indian sites surviving into the present within this physiographic province. To date, no efforts have been made at attempting to identify intact Pleistocene landforms within the Middle Chattahoochee River Valley which could in turn be intensively examined for Paleo sites or artifacts. Hence the absence of Paleo sites within the Middle Chattahoochee Valley should not equated with the absence of Paleo-Indians simply at face value.

The research potential of Paleo-Indian sites within the Middle Chattahoochee Valley is thus considered to be worthy of attention. Given that the fundamental presence/absence of Paleo-Indians in the region has not yet been resolved, each documentation of Paleo presence in any form contributes largely to our understanding of these earliest days in regional prehistory. Given that site identification remains the single greatest obstacle to the study of Paleo-Indians in the Middle Chattahoochee, it is suggested that efforts to identify and survey intact Pleistocene landforms, rock shelters and/or caves with the potential for preserved Paleo sites, and/or other promising site locations (eg. uplands overlooking river shoals where herd crossings would have taken place) should represent the major research efforts for our study of the Paleo-Indian along the Middle Chattahoochee River in the near future.

THE ARCHAIC

As noted above, changes in environmental conditions brought on by the end of the Pleistocene Era in turn inspired shifts in human settlement/subsistence/social strategies. This subsequent period in prehistory is known as the Archaic, and extended from 8,000 B. C. to 2,000 B. C. While the Archaic as a whole shares the common theme of a reliance on hunting and gathering and band organization as the dominant subsistence and social parameters, this period is also one of substantial change, as witnessed by increased evidence for reliance on gathering plant foods and securing faunal components of the diet from a broader and broader range of sources. These trends led away from migratory settlement and social patterns toward sedentary life, and by the end of the Archaic steatite and finally clay pottery was introduced. Thus the Archaic is rather securely subdivided into Early, Middle, and Late stages, based on excavated material from a number of Southeastern sites which indicate and support the changes occurring in Archaic culture.

Hally and Rudolph (1982), Thomas et al. (1983), and others all note that the Archaic sequence in west Georgia is poorly defined. Hally and Rudolph (1982) view the Early and Middle Archaic as an unresolved spatial and/or temporal transition between the Standing Boy Flint complex and the Old Quartz Complex,

noting that while it is assumed that the Standing Boy Flint Complex is synonymous with the Early Archaic, and the Old Quartz Complex with the Middle Archaic, it is conceivable that the two may represent competing cultural horizons in west Georgia (Hally and Rudolph 1982:11). Thomas et al. (1983:15) view the information available on Archaic culture in the region as too preliminary to propose cultural sequences or horizons for the area, and lump the entire period as an "Archaic Stage," which they feel is sparsely documented in the region. Research undertaken to the north and east has more confidently identified Archaic phases, with Ledbetter et al. (1986:IV-13/IV-69) associating the Early Archaic phase with the side-notched and corner-notched projectile point traditions (and specifically the Big Sandy I, Kirk, and Bifurcate points - note that a stemmed variant of Kirk is also assignable to the Early Archaic); the Middle Archaic with Stanley, Morrow Mountain, and Middle Archaic Stemmed Points; and the Late Archaic with the Savannah, Late Archaic Stemmed, and Wade Points. The survey data generated by both Hally and Rudolph (1982) and Johnson (1980) indicate the Archaic was a dominant cultural period within the prehistory of the region. The shift from the region's relative absence of Paleo-Indian sites to the preponderance of Archaic sites suggests the corresponding shift in subsistence economies favored the piedmont, and placed less emphasis on the coastal plain. Such shift is likely to reflect the increased role of a "forest economy" within the Archaic culture, and a heavier reliance on forest resources (nuts, other plant foods, small game) than perhaps is generally recognized for the period. However, following the discussion outlined above, the increase in Archaic site recognition may also reflect changes in raw material selection and the development of local raw material sources (especially for the Middle and Late Archaic) such that tools were more readily disposed of and Archaic sites are more frequently discovered archeologically. Settlement, subsistence, and lithic technology thus form the key elements within the research of the Archaic in west Georgia.

The Early Archaic

Within the environmental history of the Southeast, the Early Archaic (8,000 - 6,500 B. C.) is generally recognized as the human adaptive response to the end of the Pleistocene and beginning of the Holocene, in which the big-game focus of the Paleo-Indian Period gave way to a more "diffused" hunting and gathering economy (Anderson and Hanson 1988). Initial archeological reconstructions of Archaic settlement/subsistence considered the social organization of this period as organized by egalitarian bands hunting within specific territorial boundaries, and occasionally gathering for ceremonial and cultural exchange (Griffin 1952; Caldwell 1958). In many respects this view of Early Archaic society failed to distinguish any cultural aspects of this period from the preceeding Paleo-Indian Period, and instead viewed the Early Archaic as a sort of "Paleo-Indian minus the mammoth." Such views have been challenged by recent findings, however, which suggest that plant foods comprised a much greater component of Archaic subsistence than previously thought (Chapman 1977; Anderson and Joseph 1988). Hence, this perspective suggests the initiation of a "forest efficiency" at an earlier point in time than originally hypothesized.

Early Archaic sites represent a significant component of identified West Point Lake sites. Hally and Rudolph (1982:82) identified 106 Early Archaic sites found in the shoreline survey of West Point Lake. Although their report does not give much detail on the specific types of Early Archaic material recovered, Hally and Rudolph (1982) do mention a bevelled quartz projectile point recovered from site 9Tp637.

During the excavation of the Oliver Reservoir, McMichael and Kellar (1960:148-155) described the Standing Boy Flint Industry, an Early Archaic manifestation comprised of heavily patinated coastal plains chert artifacts, such as bevelled projectile point forms of the side and corner-notched types, knives, blades, plano-convex scrapers, and flake scrapers. Huscher (1964a; 1964b) expanded the concept of the Standing Boy Flint Industry and included sites in the Columbia and Walter F. George Reservoirs on the Chattahoochee River below the fall line. He pointed out that some of the projectile point forms might be assigned to Decatur, Ecusta, and Plevna types (Huscher 1964a). It is now possible to suggest that many of the projectile point forms are related to a general Kirk - Palmer - Big Sandy - Bolen horizon, which can be dated to ca. 7500 - 6900 B. C. (Chapman 1976:9; see Johnson 1981:58). It is apparent from Hally and Rudolph's mention of a bevelled point from Tp637 that a similar Early Archaic manifestation is present in the West Point Lake area, although lithics appear to be more commonly of quartz in this area, which is more removed from coastal plain chert sources than the Oliver Reservoir to the south.

During the present project, Early Archaic notched and bifurcate base projectile points were recovered at sites 9Tp294, 9Tp62, 9He134, 9He76 and 9Tp867. Sites 9Tp294, 9Tp62, 9He134 yielded single specimens of identifiable Early Archaic notched point types, which are believed to predate the bifurcate tradition in the southeastern United States (Chapman 1976; Claggett and Cable 1982). Included within the earlier notched typology are the local Pine Tree and Damron variants of the broader Palmer-Kirk Horizon that falls between 8000 and 6000 B. C. (Claggett and Cable 1982:34; Anderson and Schuldenrein 1985:289). Chapman (1976:9) dates the bifurcate style of point to the period 6700-6300 B. C. in eastern Tennessee, and these dates appear to be relevant over a wide area of the eastern United States.

The archeological understanding of Early Archaic adaptation has increased dramatically within the past decade, in light of several major site excavations. While initial formulations of Archaic culture were developed from excavations at rockshelter sites, and in particular the Stanfield Worley Bluff site (DeJarnette et al. 1962) and Russell Cave (Miller 1956, Griffin 1974) for the Southeast, data collection since Coe's (1964) successes on the Yadkin River of North Carolina have productively been directed toward stratified floodplain sites, with work at several Little Tennessee River sites (Chapman 1973, 1975, 1977, 1978, 1985) and from the Haw River in North Carolina (Claggett and Cable 1982) representing the most reknowned Archaic studies. As a product of these and other Archaic studies, several models of Early Archaic settlement and social

organization have been proposed. This review of the models presented to date is based on Anderson's (Anderson and Joseph 1988:113-118) synopsis of this research.

The three major models of Archaic settlement on the South Atlantic Slope are Cable's (1982) "Effective Temperature/Technological Organization" model, O'Steen's Wallace Reservoir model, and Anderson and Hanson's (1988) "Band/Macroband" model. Cable's view of Archaic settlement and social organization, as well as the transitional phase from the Paleo-Indian to the Archaic, was tied directly to climatic changes and the gradual warming experienced during the Holocene. Cable's argument runs counter to most traditional thinking with regard to Archaic settlement, and contends that climatic warming would have prompted increased mobility. Since most archeologists have equated the end of a big-game subsistence strategy with a decrease in migratory patterns, the postulation of such increased mobility represents a new direction in the view of Archaic settlement. Claggett and Cable (1982:13) state that:

> this dynamic and rapid shift from a cool, boreal setting to a warmer, temperate setting might cause the adaptive organizations of early to mid-Holocence hunter-gatherers to exhibit a hypothetical directional trend from systems emphasizing logistical mobility to systems dominated by "mapping on" strategies. Since logistical strategies result in fewer residential moves, we should expect a decrease in the degree of residential permanence from the Early to Middle Holocene.

As proposed, the effective temperature/technological organization model suggests that the increase in residential mobility would feature a shift from a highly curated, logistical, technology to a highly expedient, situational, technology more suited to a forager adaptation. At Haw River, such a shift from curated to expedient tools was noted at the Dalton/Palmer, Transitional Paleo/Early Archaic, boundary, suggesting that the Early Archaic indeed witnessed the advent of a more mobile community as evidenced by fewer formal tool types.

O'Steen's (1983) settlement analysis of Archaic site location within the Wallace Reservoir was based on the examination of 363 Early Archaic projectile points from 248 sites within the floodpool of the Wallace Reservoir. O'Steen (1983:66-69) observed that Early Archaic sites were likely to occur in areas with the greatest diversity and density of resources. The majority of multicomponent/multipoint sites were revealed at drainage confluences, and these were considered to represent spring, summer, or fall base camps, while upland multicomponent/multipoint sites were viewed as fall/winter camps (O'Steen 1983:106-109). Single component/point sites outnumbered the multi component/point sites by a ratio of 5:1, and were scattered across the landscape. These were viewed as transitory hunting/butchering sites.

O'Steen developed estimates of the population of the Wallace Reservoir area, based on the carrying capacity of the vicinity and as well as estimates of band size

determined by biological and reproductive capacity. She thus projected that between 80 and 200 people could have been supported by the area. O'Steen (1983:115) argued that the Early Archaic occupation of the Wallace reservoir was sedentary and focused on a relatively small territory, with extra-local materials found in the Reservoir explained as the product of trade relations. Her projection of a sedentary lifeway was influenced by the contention that "hunter-gatherers in temperate, ecologically diverse environments" favored a sedentary adaptation (O'Steen 1983:115). This argument, which counters that presented by Claggett and Cable (1982), has yet to receive direct support from either archeological or ethnological research, nor has it been disproved. As presented, O'Steen's settlement model from the Wallace Reservoir is drainage focused, and her emphasis on resource diversity would suggest that drainage environmental transitions might be preferred band habitats.

Anderson and Hanson's "Band/Macroband" model views Early Archaic settlement as two-dimensional, and structured by four factors: (1) environmental conditions, and specifically seasonal and geographic variation in resource availability; (2) biological interaction, through mating networks; (3) information exchange, primarily for mating and subsistence maintenance and regulation, and most likely embedded in social and economic exchange; and (4) demographic structure, as evidenced by population size and spacing. Anderson and Hanson (1988) argued that two levels of band organization existed; the local band and the regional macro-band. Bands were hypothesized as consisting of 50 to 150 peoples, while the range of macro-band populations might be from 500 to 1500 individuals. The "annual settlement round" proposed by Anderson and Hanson featured migration from the piedmont, whose resources were exploited in the summer and fall, to the coastal plain which served as the resource base in the spring, with a return to directly below the fall line for the winter months. While this migration was focused on specific drainages, macro-band aggregation occurred along the fall line during the fall migration toward the coast. Macro-band aggregation most likely occurred between adjoining drainage bands or groups of drainages. Given the extent of Anderson and Hanson's proposed South Atlantic Macro-Band, which covered the area from the Neuse River to the Ocmulgee drainage, it is uncertain whether direct exchanges ever occurred between opposite ends of the macro-band community, although collateral exchange between drainage bands would offer the potential of distributing mates, information, and goods throughout the macro-band region through a ripple effect.

Anderson and Hanson (1988:278-279) compared the distribution of artifact types among the seven sites included in their Savannah River study set, with differences noted between sites attributable to special site functions (i.e. quarrying at the Theriault site) and the intensity of occupation. Five of the seven sites reflected a relatively diverse assemblage with a low curated to expedient tool ratio, which were considered as characteristics of Early Archaic sites along the Savannah. The contribution of various raw material types to the assemblages varied dependent upon location and raw material access, although Anderson and Hanson noted that the degree of variation in raw material use between sites occupying different environmental stations along the Savannah indicated that

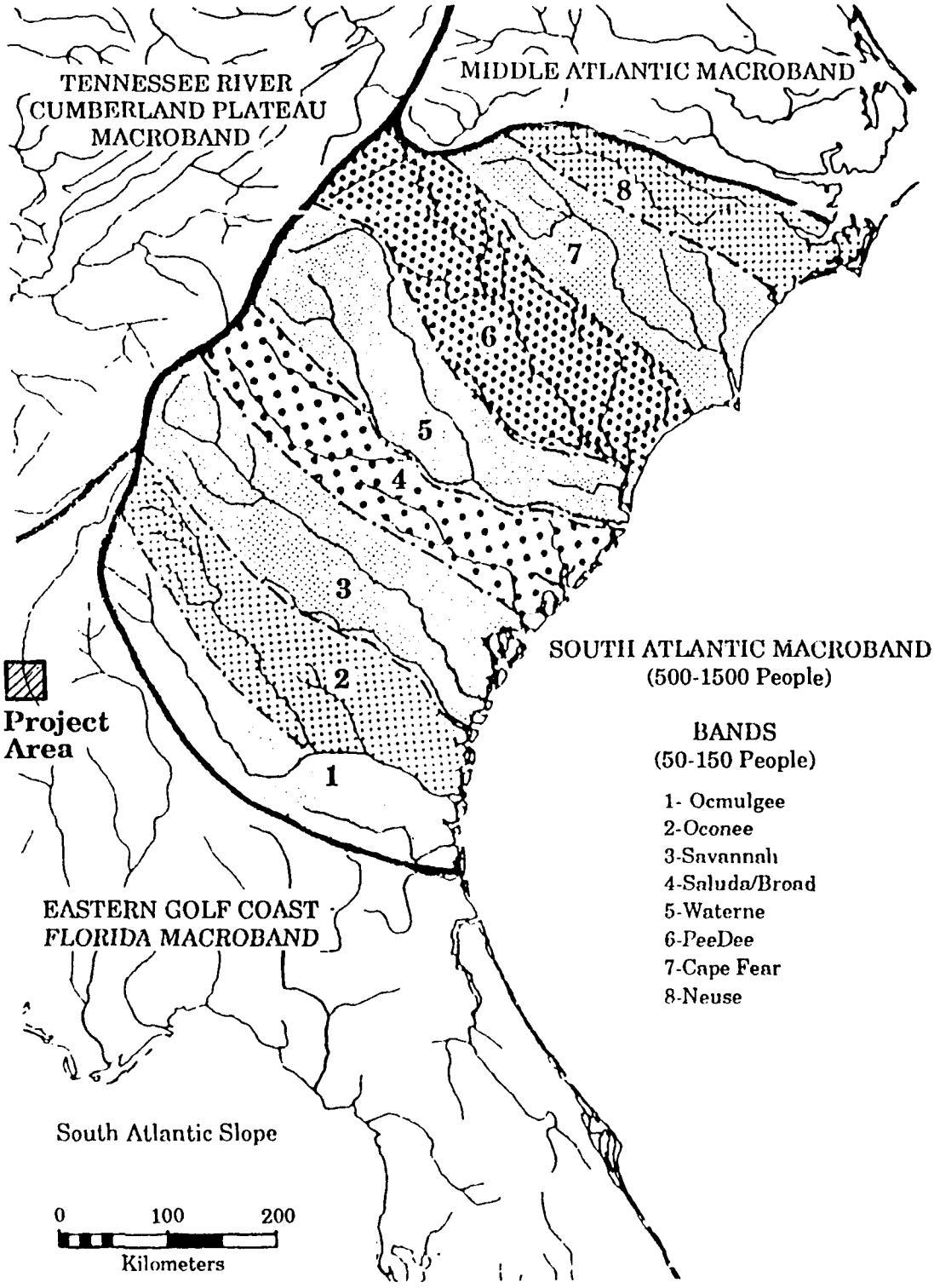
social interaction and/or migration did occur along the drainage as a whole, as this variation was gradual rather than dramatic or "step-like," which would be expected if groups occupied smaller territories or failed to trade and interact with other groups along the Savannah (Anderson and Hanson 1988:278-281).

Anderson and Hanson's (1988) model is based on social fluidity and the need for relatively small populations to meet and exchange mates. Hence, as population size increased over time, macro-band boundaries and networks are likely to have decreased. Anderson and Hanson's model accounts for certain factors proposed both by Claggett and Cable and O'Steen, respectively residential mobility and drainage-focused subsistence strategies, although their observations run counter to O'Steen's relatively sedentary model of subsistence and social interaction. Anderson and Hanson (1988:271-272) proposed four macro-bands for the Southeast (Figure 47): a Middle Atlantic macro-band, a Tennessee River/Cumberland Plateau macro-band, an Eastern Gulf Coast-Florida macro-band, and their South Atlantic macro-band. These units were segregated on the basis of mountain divides, drainage patterns, and clinal variation, with the boundary between the Middle Atlantic and South Atlantic macro-bands recognized as the most problematical, since gradual climatic variation was recognized as the only distinguishing feature between these regions. Relevant to the current research is the boundary between the South Atlantic and Eastern Gulf Coast macro-band, which is in close proximity to the Chattahoochee River, the eastern-most drainage within the Eastern Gulf Coast macro-band. Given the Chattahoochee's northeastern to southwestern trend, the upper reaches of the river would be extremely close to the South Atlantic macro-band, as proposed by Anderson and Hanson (1988). If Anderson and Hanson's model is correct, the Chattahoochee should offer an excellent laboratory for testing macro-band boundaries and interaction.

Future research of the Early Archaic at West Point Lake and along the Middle Chattahoochee is thus faced with a number of objectives. At present, little more than the existence of an Early Archaic can be contributed from the work at West Point Lake. Settlement analysis, similar to that performed by O'Steen for the Wallace Reservoir, should be undertaken to determine the locations of Archaic sites and their function within a drainage-focused social and subsistence organization. Expedient to curated tool ratios, an important aspect of both Cable's and Anderson and Hanson's models should be developed for Early Archaic sites in the region, in order to gauge the degree of mobility evidenced at these sites. Specific attention should be directed toward any sites sufficiently preserved to answer questions concerning seasonality. Although it is unlikely that such sites are present within the non-inundated portions of the reservoir, seasonal resource exploitation appears to be the key to understanding Early Archaic settlement and migration for all of the models outlined above.

Anderson and Hanson's band/macro-band model should also be tested by Early Archaic studies within the region. While Anderson and Hanson have provided considerable data to support their hypothesis that social settlement

Figure 47
Anderson and Hansen's (1988) Proposed
Band/Macro-band Distribution



Source: Anderson and Joseph 1988:317

strategies of the Early Archaic were drainage-focused, such observations only support their "band" level of interpretation. Further research is necessary to evaluate the concept of the macro-band. As the Chattahoochee marks the eastern boundary of the East Gulf Coast macro-band, it might be assumed that sufficient variation would exist in tool technology, form, and style to distinguish members of this macro-band from those of the South Atlantic macro-band. If boundary maintenance was a critical concern of the Early Archaic macro-bands, then it could be assumed that stylistic and technological variation would be greatest along boundaries, as a means of signifying social segregation. While a general Early Archaic tradition and technology is recognized for the Southeast, specific dimensional aspects of Early Archaic tools and percent contributions of assemblages should be examined in order to determine if materials from distinct macro-band territories are recognizable archeologically. Since Anderson and Hanson have documented that location will influence assemblage formation in the percentage contribution of various raw material types, comparisons should be made between West Point Lake sites and those of similar physiographic setting for the South Atlantic macro-band region and the Gulf Coast region. If regional differences can be distinguished among sites and assemblages, then Anderson and Hanson's macro-band boundaries would be supported, while if no differences were observed, the existence of drainage-focused bands without any cohesive higher social unit would be suggested. The band/macro-band concept and the regional boundaries hypothesized by Anderson and Hanson should also be examined in an evolutionary perspective, as such organization may offer the key to understanding West Point Lake settlement at later points in prehistory.

Middle Archaic

The Middle Archaic (6,500 - 3,000 B. C.) is generally recognized as the full adaptation to the climatic and environmental conditions of the Holocene, as represented by increased population, sedentism, and the formation of more rigid territorial boundaries. Diagnostic projectile points of this period include the Stanly Stemmed, Morrow Mountain I and II, and Guilford Lanceolate. Typological identification for the latter portion of the Middle Archaic is less secure, and Anderson, in Anderson and Joseph (1988:135) note that Halifax (Coe 1964) and Benton-like points such as the MALA (Sassaman 1985, 1988) may represent transitional Middle to Late Archaic forms. Other tools of the Middle Archaic include battered and pitted cobble tools, utilized flakes, and rough biface/core/preforms. Despite the increased presence of Middle Archaic peoples throughout the Southeast, little is known of their existence, with a migratory, small band, social structure focused on relatively small territories hypothesized as the likely social system (Anderson and Joseph 1988:133-135; Clagget and Cable 1982; Sassaman 1985; Blanton and Sassaman 1988).

Middle Archaic sites in the Georgia piedmont have traditionally been assigned to the Old Quartz Industry (Caldwell 1954). Johnson's (1981) review of this concept demonstrates it to be outmoded. Although many of the Quartz Industry sites do date to the Middle Archaic, we would now recognize Morrow

Mountain and Guilford projectile points in the assemblages from formerly Old Quartz sites. Johnson (1980; 1981) demonstrates that the Middle Archaic was a time of limited use of exotic lithic materials, suggesting increased sedentism (or at least restricted wandering) and lack of long distance exchange. Hence the Old Quartz concept is considered as a reflection of territoriality within the piedmont rather than a specific technology and social organization.

Hally and Rudolph (1982:82) note that there were 245 Middle Archaic sites found in West Point Reservoir, making this by far the most common site type defined. Johnson (1980, 1981) found almost the same proportion of Middle Archaic sites in his transmission line work in primarily non-riverine areas. The present project identified three sites containing Middle Archaic components identified on the basis of Morrow Mountain, Halifax, and Guilford projectile point forms. Morrow Mountain points are the oldest Middle Archaic point type with an inferred age of 5000 to 4000 B. C. (Coe 1964; Anderson and Schuldenrein 1985). Halifax and Guilford points postdate the Morrow Mountain point and are assigned a date range of 4000 to 3000 B. C. (Coe 1964). The largest Middle Archaic Morrow Mountain component was found at Site 9Tp294, which yielded six of the seven Morrow Mountain points recovered by the 1989 and 1990 investigations. The one remaining Morrow Mountain point was identified in the Site 9Tp62 collections. Conversely, the majority of the later Middle Archaic point forms (N=5) were identified at Site 9He76, which yielded two Halifax and two Guilford points. One Guilford point was found at Site 9Tp294.

Middle Archaic settlement, as noted above, is considered to reflect a restriction of the linear extension of proposed Early Archaic band territories along drainages, and an expansion to include and exploit a greater variety of resources. Increased sedentism, intensified reliance on local resources, and more complex socio-political organization during the Middle Archaic have been argued by a number of scholars (Stoltman 1972; Bose 1979; Brown and Vierra 1983; Smith 1986; Sassaman 1983; Blanton and Sassaman 1988). Two major settlement models for the South Atlantic slope have been advanced: Sassaman's "adaptive flexibility" model (Sassaman 1983, 1985, 1988; Blanton and Sassaman 1988), and the "riverine-interriverine" model developed and presented by House, Goodyear, and others (House and Ballenger 1976; House and Wogaman 1978; Goodyear et al. 1979).

Sassaman's model of "adaptive flexibility" viewed Middle Archaic settlement as highly mobile and expedient. Because of this mobility, Sassaman (1988:5) argued that Middle Archaic sites:

> tend to be small in size, low in artifact density and diversity, distributed abundantly and widely across the piedmont, and exhibit little interassemblage variation.... [settlement aspects feature] frequent relocation of residential bases, small co-resident group size, fluid group membership, relatively undifferentiated land use, and expedient technology.

Sassaman argued that Middle Archaic peoples exploited locally available resources, and migrated on a regular basis in order to reach and utilize these resources. Tools were highly expedient, and within the piedmont, the preferred raw material was locally available quartz. By nature of this mobility and expedient technology, the typical Middle Archaic site would be the ubiquitous "lithic scatter."

House and Goodyear posited a different model of Middle Archaic settlement, in which base camps were established along the river floodplains and extraction/procurement sites occurred in the upland and interriverine areas in order to exploit locally available resources found in those areas. Thus, while House and Goodyear would also predict a dispersion of Middle Archaic sites, their research would suggest differentiation in site function, contents, and complexity, particularly between the floodplain and the uplands.

While the data at present are inconclusive, the relative paucity of large, complex, Middle Archaic sites and the identified characteristics of the Middle Archaic tool kit support the assumptions of Sassaman's "adaptive flexibility" model. In general, the data from West Point Lake are also supportive of this interpretation. Following Sassaman, the preponderance of Middle Archaic sites within the reservoir may be viewed as a factor of multiple short-term activity sites rather than increasing population. The absence of detailed survey data from the floodplain of the reservoir precludes dismissal of House and Goodyear's riverine/interriverine model, however, which could also explain the prevalence of Middle Archaic sites from the region since this model also recognizes numerous and dispersed resource procurement camps. However, if House and Goodyear's model was correct for the region, then we would project a much higher population density for the Middle Archaic on the Middle Chattahoochee than Sassaman would indicate. Given the absence of floodplain settings for study, it is doubtful that the project area can contribute meaningfully to the study of Middle Archaic settlement models.

Beyond simple questions of settlement and site function, other research aspects which could be addressed for the Middle Archaic along the Middle Chattahoochee would include typological identification. Anderson (Anderson and Joseph 1988:152-154) notes that the quartz Morrow Mountains and Guilfords were replaced by metavolcanic short stemmed points in the terminal portion of the Middle Archaic along the Savannah River. The projectile point typology for the Middle Chattahoochee is poorly known, and the potential presence of similar terminal Middle Archaic types needs to be addressed. Raw material preference should also be a topic of consideration, as there is currently little recognition of metavolcanics as a raw material source in the area during the Middle Archaic. The distribution of raw materials during this time period requires further study and analysis, in order to determine whether the shift from quartz to metavolcanics witnessed in the Savannah River drainage also occurs in west Georgia, and whether such shift reflects raw material availability and/or changes in lithic technology (perhaps associated with a stemmed projectile point tradition?). Finally, if preserved Middle Archaic sites can be defined, topics such

as subsistence, seasonality, and other fundamental concerns of the Middle Archaic lifeway require study.

Late Archaic

The Late Archaic (3000 - 500 B. C.) in the southeast witnessed the origins of ceramic technology, and hence has frequently been regarded as a transitional phase between the migratory hunter-gather subsistence of the Archaic and a more settled horticultural/agricultural society during the following Woodland Period. While scholars are now beginning to recognize a continuance of migratory hunter-gatherer strategies into the Woodland Period, the late Archaic none-the-less appears to reflect increased sedentism and population density throughout the Southeast. The subsistence strategy of the Late Archaic appears to be more logistically oriented, with base camps established near aquatic resources, both marine and riverine. Hence Late Archaic sites tend to be more developed, complex, and diverse than those of the preceeding Early and Middle Archaic phases.

Diagnostic materials of the Late Archaic include both projectile points and pottery. Large squared-stemmed Savannah River points (or Broadpoints) are a hallmark of the period, and occur in association with smaller stemmed varieties such as the Gary (Newell and Krieger 1949), Otarre (Keel 1976), and Gypsy (Oliver 1981) points. In general, the smaller points appear to become more prevalent in the latter centuries of the Late Archaic. Ceramics of the Late Archaic include the fiber tempered Stallings Island variety, a type defined along the Savannah River, the fiber tempered Orange and St. Johns types from the Gulf Coast, the fiber tempered Wheeler ceramics from the Tennessee River Valley, the sand and fiber tempered Norwood types from the Gulf Coast, and sand-tempered Thoms Creek ceramics from the Georgia and South Carolina coast. The Stallings Island and Thoms Creek varieties appear to most often occur as hemispherical bowls, while Orange, Norwood, and Wheeler wares occur most frequently as flat based beakers (Anderson and Joseph 1988:156; Walthall 1980:87). While plain ceramics dominate these styles, decoration, including punctation, incision, finger-pinching, and simple stamping is known to occur. Other diagnostic materials of the Late Archaic include steatite bowls and "netsinkers," full and three quarter grooved axes, cruciform drills, baked clay objects, atlatl weights, and grinding basins.

Hally and Rudolph identified 95 Late Archaic sites at West Point Lake. Although they did not separate preceramic and ceramic sites, they did note that only a few sherds of fiber tempered pottery were located in the survey (Hally and Rudolph 1982:82, 12). Johnson found 20 Late Archaic sites his upland survey (1980; 1981), none with fiber tempered ceramics. Many of Hally and Rudolph's sites possessed fragments of steatite vessels, and at least one soapstone quarry site, 9Tp210, was located by Hally and Rudolph (1982).

The present survey recovered Late Archaic stemmed projectile points from 9Tp294, 9Tp867, and 9Tp366, steatite vessel fragments from 9Tp294 and 9Tp366, and fiber tempered pottery from site 9Tp366. Much of this pottery is decorated by simple stamping, and appears most similar in appearance to Norwood wares. It should be noted that the association of fiber tempered Late Archaic ceramics from the region with established types is tenuous, given the relative lack of Late Archaic site studies conducted in west Georgia. There also appears to be some overlap between the Savannah River Valley styles (eg. Stallings Island), and the Gulf Coast varieties.

In the Oliver Basin, McMichael and Kellar found fiber tempered pottery with typical Stallings Island stab and drag punctation and trailed lines at several sites (1Le1, 1Le7, 1Le16, 1Le17, and 9Me205), and plain fiber tempered pottery at other sites (1Le11, 1Le21, and 9Me214). They suggested that the plain fiber tempered pottery sites are earlier than the sites with decorated fiber tempered pottery (McMichael and Kellar 1960:205), and recognized an association between the Chattahoochee River and the Stallings Island component defined along the Savannah.

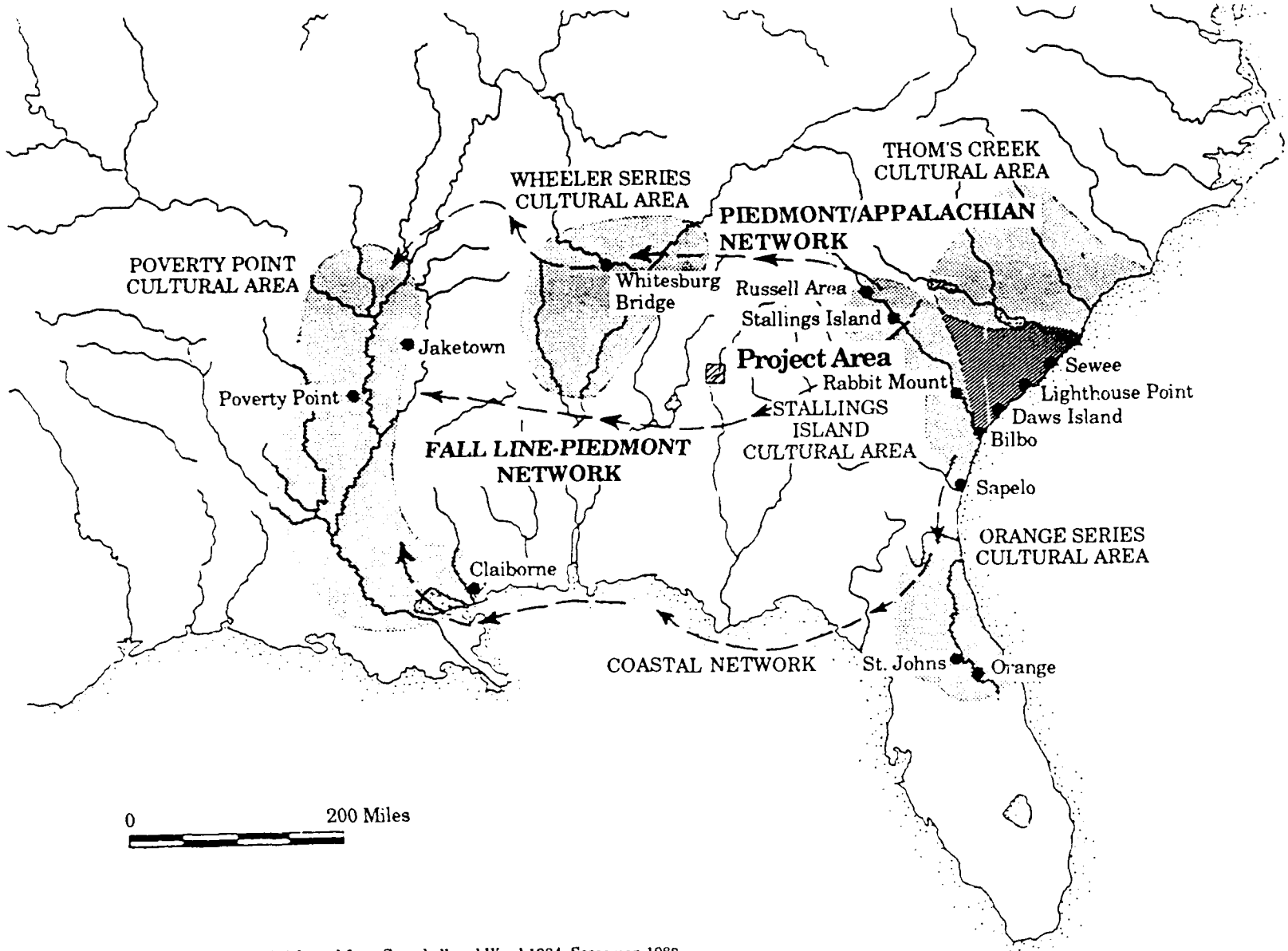
The contemporaneity of Stallings Island wares with those identified for Chattahoochee River sites has been brought into question by Knight and Mistovich, however. They note that given the poor documentation of Late Archaic sequences from the region, "[i]t is impossible to exactly correlate the introduction of fiber tempered pottery to the local sequence of Late Archaic flaked stone tool forms. The applicability of better documented Late Archaic sequences from the upland South to this region is uncertain, despite the direct correspondence of many specific projectile point forms, namely because the timing of ceramic innovation may be quite different in the two regions" (Knight and Mistovich 1984:214). Knight and Mistovich note that decorative techniques associated with the Stallings Island tradition have been defined at several Chattahoochee Valley sites, while only plain fiber tempered ceramics have been noted at others. They note that the paste of these plain ceramics contains the combination of sand and fiber associated with Norwood ceramics, and thus speculate that these plain ceramics may actually be later than the decorated Stallings Island wares. Hence Knight and Mistovich would distinguish between an early phase of Late Archaic ceramics featuring pure fiber tempering in association with Stallings Island decorative elements, and a later phase consisting of plain and simple stamped sherds with a sand and fiber temper, and associated with Norwood ceramics (1984:215). The preliminary findings from 9Tp366 support this presumption, since much of the fiber tempered material from this site was simple stamped, and this research in turn suggests that the presence of additional tempering or inclusions in plain fiber tempered wares must be evaluated closely if Norwood ceramics are to be distinguished from plain Stallings Island sherds, and if an accurate Late Archaic chronology for the region is to be developed. Phelps has obtained a radiocarbon date of 1012 B. C. for Norwood Pottery (Phelps 1965; Walthall 1980:85), and hence these ceramics may be transitional with the Early Woodland phase, depending upon the cultural chronology employed (see below).

Analysis of Late Archaic settlement patterning suggests that House and Goodyear's riverine/interriverine model may be applicable to this subsequent phase in prehistory. Survey collections examined by both Sassaman (1983) and White (1982) indicate that base camps were situated in the floodplain and specialized procurement sites in the uplands during this period. Alterman (1987) and Sassaman (1988) both argue that shell midden sites along the coast are likely to represent major aggregation loci, and that groups from specific drainages and perhaps adjacent drainages would periodically meet at such locations. Ceremonial and perhaps ritual burial activities, kinship gatherings, and other forms of social alliance were likely to have occurred at such meetings. Sassaman (1988) has further argued that such aggregations are likely to have occurred at two levels: locally (i.e. between social groups sharing portions of the same social system, most likely represented as a drainage), and regionally (i.e. between local groups from within a social system/drainage). For the Savannah River, Sassaman (1988) views sites such as Stallings Island as representing regional aggregation sites, whereas the coastal shell midden sites may have played a role in multi-regional aggregation.

Sassaman's perceptions of social organization and aggregation during the Late Archaic is similar in many regards to Anderson and Hanson's Early Archaic band/macro-band model. Sassaman's model provides a new dimension to social interaction and organization, reflecting the presumed decrease in territorial extent which is hypothesized to have occurred during the Late Archaic. Thus within Sassaman's analysis, the "band" would have occupied a limited portion of a particular drainage, whereas his equivalent of the macro-band might be presumed to occur from the coalition of bands within a particular drainage. At a higher level then this would the social unit formed by the aggregation of macro-bands at sites along the coast, and interestingly it is at this level of organization that the best evidence of ceremonial activity exists. Hence, if Anderson and Hanson's and Sassaman's models of drainage and multi-drainage social organization are valid, then such organization is are likely to be fundamental to later social development and organizational structure.

Interestingly, Anderson (Anderson and Joseph 1988:193-195) and Sassaman (1988) infer from the presence of Stallings Island ceramics at other piedmont sites that social exchange cross-cut drainages. Sassaman (1988) has argued that such exchange occurred along the fall line, since the environmental wealth of this "macroecotone" would have supported and facilitated movement between drainages, with the fall line acting in many respects like a drainage which cross-cut drainages. Following this line of reason, Anderson (Anderson and Joseph 1988:194; Figure 48) presents a view of social interaction in which exchange routes followed three paths: the Appalachian chain, the fall line, and the Coast. Within this model, the project area would have been most effected by exchange from the Stallings Island Cultural Area, while the Gulf Coast Late Archaic (Gulf Coast Formational) would have received influence from the Orange Series Cultural Area. Without engaging in a full discussion of ceramic and chronological sequences for the South Atlantic and Gulf coasts respectively, it should be noted that a Gulf Coast Formational sequence has been developed as a

Figure 48
Late Archaic Culture Areas and Hypothesized Interaction Paths for the Southeast



Source: Anderson and Joseph 1988:194; Adapted from Campbell and Weed 1984, Sassaman 1988.

distinctive cultural chronology from that presented for the South Atlantic coast (Walthall 1980). Within this chronology, as discussed above, are the Norwood sand and fiber tempered ceramics, which appear to occur within the West Point Lake region. Thus, reasonably firm affiliation between the Middle Chattahoochee Valley and the Gulf Coast can be posited by the late Late Archaic, supporting an Eastern Gulf special alliance for the region as originally posited by Anderson and Hanson (1988). However, the appearance of earlier Stallings Island wares elsewhere within the region brings into question the origin and antiquity of such a social unit. If the analyses from the Oliver basin are correct, then it would appear that during at least the early Late Archaic phase social relations and migrations cross-cut drainages, as predicted by Anderson, and the appearance of Stallings ceramics and absence of Orange wares suggests the region was more closely affiliated with the Savannah and South Atlantic Coasts than the Gulf until the close of the Late Archaic era. Such associations and sequences can only be casually discussed at present, due to the paucity of available site-specific sequences and assemblages, but the Late Archaic within the region must be recognized as critical to the development of any understanding of regional and cultural associations and development, since it is within this period that we are first able to recognize cultural affiliations between the region and the South Atlantic Slope and Gulf Coast respectively.

Beyond this question of cultural association and context, settlement models such as those advanced by House, Goodyear, White, and Sassaman must be developed and addressed for the region; projectile point typologies and raw material sources must receive further attention; site assemblages and formation must be studied and presented; and basic cultural attributes such as subsistence must be addressed. While the Late Archaic has not received much attention in the previous archeological study of the region, it should be recognized as integral to the resolution of problems faced by the research of subsequent phases.

THE WOODLAND

As initially formulated, the Woodland Period was conceptualized as representing the shift from logistical hunting and gathering to sedentary horticulturalism, in association with village formation, increased social complexity, and the rise of ceremonialism. More recent studies have recognized that the transition from hunting and gathering to sedentary horticularism and agriculture was far more gradual than thought, such that some researchers have described the Woodland as representing "basically Archaic-like adaptations with pottery" (Anderson and Joseph 1988:205). A continued reliance on base camps and specialized procurement sites, coupled with hunting, the intensive gathering of floral foodstuffs, and limited horticulture appear to mark the key parameters of the Woodland Period settlement and subsistence strategy.

Much of the research devoted to the Woodland Period in Alabama and Georgia has been directed toward aspects of cultural chronology and sequence

reconstruction (Griffin 1945; Chase nd; Caldwell 1958; Garrow 1975; Schnell 1975; Jenkins 1976; Walthall 1980; Purrington 1983; Hanson and DePratter 1985; Trinkley 1983). Unfortunately, sequence definition within the Middle Chattahoochee is poorly developed. As with other cultural chronologic periods, separate chronologies have been developed for the piedmont and coastal plain, and the project area's proximity to the break between these physiographic environments has tended to blur cultural distinctions. Similarly, chronological statements have tended to be made for specific states, since these current social units form the boundaries in which much archeological research is directed. West Point's situation on the Alabama- Georgia border thus contributes to the current state of confusion when its placement within Alabama and Georgia generated chronologies is reviewed. The Woodland is generally divided into Early, Middle, and Late phases in chronological treatments of the Southeast. While a similar separation is followed here, it should be noted that the temporal placement of these phases and of complexes with these varies significantly from researcher to researcher, reflecting the lack of secure data and relative or absolute dates for Woodland sites from the region. In many respects, ceramic complexes and sequences, such as those presented by Knight and Mistovich, may more readily address aspects of regional cultural history than specific Early, Middle, and Late Woodland phases.

Considerable variation exists for those sequences developed for the piedmont and those presented for the inner coastal plain, as well as between respective chronologies. Walthall's (1980:81) sequence views the Early Woodland as associated with the Late Gulf Coast Formational sequence, and originating around 500 B. C. and continuing to ca. 100 B. C. The advent of a Deptford culture within the region is recognized by Walthall at circa 300 B. C. Walthall associates Deptford with both the Early and Middle Woodland, which he places from 300 B. C. to A. D. 500 (Walthall 1980:180-181). The terminus of the Middle Woodland is marked by the appearance of Early Swift Creek ceramics at A. D. 100. In his chronology, Swift Creek continues in the the Late Woodland, from A. D. 500 to 700, with the Weeden Island culture occurring at the conclusion of the Late Woodland, A. D. 700 to 800.

Chase (nd) recognizes Cartersville/Deptford as the initial Early Woodland component, at a significantly earlier date than Walthall, 1500 B. C. This cultural association continues to 100 B. C. with the appearance of Early Swift Creek wares, which signal the advent of the Middle Woodland in Chase's chronology. Early Swift Creek is followed by Chase's Upatoi phase along the Chattahoochee and the Middle Swift Creek along the river's tributaries. Chase concurs with Walthall in the temporal placement of the Late Woodland phase, but projects a Weeden Island component as co-occurrent with Late Swift Creek at circa A. D. 600. McMichael and Kellar's Oliver Basin sequence follows Chase's sequence although their time frame is somewhat later. For example, they recognize the introduction of Cartersville/Deptford at 150 B. C.; Early Swift Creek at A. D. 200; and Middle Swift Creek at A. D. 500. Knight and Mistovich (1984) question the identification of a Deptford culture within the region, and would instead signify the origin of the Early Woodland by the appearance of a Norwood-Dunlap-Mossy Oak ceramic

sequence (see below) during the period from circa 500 to 300 B. C. (note that, due to the paucity of secure Early Woodland dates at Walter F. George, Knight and Mistovich are vague in the chronological placement of this phase). The Middle Woodland in their sequence is associated with the Shorter (300 B. C. - A. D. 1) and Mandeville (A. D. 1 - 300) phases within their sequence, which in turn reflect a general Deptford-Cartersville-Swift Creek affiliation. The Late Woodland phase in their chronology is represented by the Kolomoki (A. D. 300 - 750), Quartermaster (A. D. 500 - 750), and Late Weeden Island - Cat Cave (A. D. 750 - 900) complexes. The characteristics of the Early, Middle, and Late Woodland phases and their identifiable sequence attributes within west Georgia are discussed below.

Early Woodland

The Early Woodland (500 - 300 B. C.) is sparsely represented within the region, and as with most of the cultural periods discussed in this report, very limited work has been directed toward this phase, further jeopardizing sequence development. Adding to this uncertainty is the appearance of Deptford-like ceramics and decorative elements in the region, which are assigned either to the Early or Middle Woodland depending upon a particular researcher's orientation (Willey 1949; Wauchope 1966; Walthall 1980; Knight and Mistovich 1984). Knight and Mistovich perhaps best summarize the frustration of dealing with the Early Woodland in western Georgia and eastern Alabama with their appraisal: "[t]he Early Woodland is one of the most enigmatic periods in the prehistory of the lower Chattahoochee Valley. This is partly a matter of a genuine scarcity of sites belonging to this period, and partly a matter of inconsistence usages contributing to a confused literature" (Knight and Mistovich 1984:215).

Knight and Mistovich (1984:216) argue that the so-called Deptford ceramics identified for sites within the lower Chattahoochee should in fact be associated with the Cartersville complexes: Shorter and Mandeville, and the Middle Woodland phase. Thus much of the Deptford association considered as Early Woodland be researchers in the region would be reclassified by Knight and Mistovich as a Middle Woodland phenomenon. In the absence of an Early Woodland Deptford, Knight and Mistovich recognize an Early Woodland horizon in east Alabama and west Georgia based on the site sequence defined by A. R. Kelly (Kelly et al. nd) at 9Sw34. Within this sequence, fiber tempered sherds and Dunlap Fabric Marked ceramics co-occurred in the lowest levels, with fiber tempering occurring with greater frequency. This suggests to Knight and Mistovich (1984:217) that the origins of the Early Woodland might be recognized by a:

> plain fiber tempered ceramic complex (Norwood affinity?) [which] greatly overlaps, but is gradually replaced by, plain and decorated sand tempered ceramics of different traditional inspiration. Textile impressed ceramics appear early, and appear to include a net marked type as well as (Dunlap) fabric impressed. Also present, "riding alone" (Kelly et al. nd:21), is simple stamped decoration on a

sand tempered ware, probably conformable to the central Georgia type Mossy Oak Stamped (Kelly et al. nd:21). The latter, unlike Cartersville Simple Stamped as usually recognized, is not produced by a carved paddle but rather by a thong or root-wrapped paddle (McMichael 1960). It is probably inspired by such Gulf Formational simple stamped types as Refuge and Norwood Simple Stamped on the Atlantic and Gulf Coasts, respectively.

If Knight and Mistovich are correct, then such "Deptford" treatments as check stamping, complicated stamping, and cord marking should be considered as Middle Woodland phenomenon. Such an affiliation is also ascribed to by Walthall (1980:180-181), who recognizes a Deptford component within the Middle Chattahoochee Valley but states that "this area was not occupied by Deptford peoples before middle Woodland times."

The sequence outlined by Knight and Mistovich is followed here, with the Early Archaic presence within the region predicated on the appearance of plain sand tempered wares, fabric impressed wares, and simple stamped wares, as well as possibly fiber and sand tempered plain and simple stamped ceramics. However, the possible association of an Early Woodland "Deptford"-like ceramic tradition should not be dismissed yet, since typological identification and segregation of Deptford and Cartersville check stamping and possibly other decorative motifs requires further study. Securely dated and rigorously analysed Early or Middle Woodland sites from the region would contribute greatly to the resolution of such questions concerning ceramic sequence and decorative association.

As presented, Knight and Mistovich's sequence would also suggest considerable overlap and give and take between the region and the Gulf Coast and piedmont, respectively. As discussed, the Late Archaic to Early Woodland Norwood ceramics are recognized as a Gulf Coast variant, while the net impressed and Dunlap Fabric Marked ceramics which follow within this sequence are recognized as north Georgia types. The simple stamped ware would again be associated with Norwood and the Gulf Coast. Such a shift in association is recognized by Thomas et al. (1983:17), who indicate that while north Georgia was the dominant cultural influence in the early Early Woodland phase, the Gulf Coast gained influence over the region by the end of the Early Woodland and beginning of the Middle Woodland, as indicated by the appearance of the Weeden Island tradition. Such frequent interchange of cultural influences might suggest the region served in a boundary capacity, never receiving a developed occupation from either coastal or piedmont traditions, and thus incurring sporadic occupation from members of both cultural hearths. Conversely, it is also conceivable that the Dunlap fabric impressed wares identified from the Middle Chattahoochee in fact represent Deptford decorative variants, and thus the Middle Chattahoochee would remain under the Gulf Coast's sway through the Archaic and Woodland periods. Again, without detailed site study, such speculations cannot be answered or even addressed.

Rudolph and Hally (1982:82) report three Early Woodland sites from the West Point Reservoir, but they fail to specify the components present. Only one Early Woodland projectile point form, Pedernalis, was recovered at Site 9Tp294 during the present investigation. Johnson (1980) did not identify any of his sites as definitely Early Woodland. Wauchope recovered Early Woodland Dunlap Fabric Marked ceramics and simple stamped ceramics from site 9He1 in Heard County, although unfortunately the location of this site is unknown (Wauchope 1966:410). Further north in Fulton County, Wauchope reports Mossy Oak simple stamped ceramics from Sandtown, 9Fu1.

In the Oliver Reservoir, McMichael and Kellar report Early Woodland Dunlap Fabric Marked ceramics, which they feel represented an intrusive cultural element from the North. They also recognized Mossy Oak Simple Stamped and later Deptford/Cartersville simple and check stamped wares (1960:206) as being indigenous to the region.

The research potential of the Early Woodland is clearly not yet beyond the cultural historical stage, and the most pressing need for the region is the accumulation of accurate and well-defined assemblages and, ideally, stratigraphic contexts. The introduction of a fabric impressed tradition, its affiliation with either the Dunlap horizon or with coastal fabric decorations, and its association with other decorative elements, must be resolved. Similarly, the definition and distinction of the Deptford and Cartersville horizons must be made. Only once such chronological identifications have been made will it be possible to determine the presence and frequency of Early Woodland sites within the region, and hence address the issue of population decline if such in fact occurred.

Middle Woodland

As noted above, the Middle Woodland association of the region is unfocused, with both piedmont and Gulf Coast associations recognized. A review of the data collected from the region highlights this uncertainty, as numerous components which fail to match any established chronological sequence are recognized. Thus, while the data are more exhaustive for the Middle Woodland occupation of the region, the origin of much of this data from survey collections precludes any considered association of the project area with established or proposed sequences.

Rudolph and Hally (1982:82) list 58 general (unspecified) Woodland and two Middle Woodland Period sites in the West Point Reservoir. They do not specifically describe these Middle Woodland sites, but their sites 9Tp276 and 9He25 produced check stamped ceramics. Site 9Tp65 contained Cartersville and Deptford ceramics according to Huscher (1972), and Cottier et al. (1981) found unspecified check stamped and Swift Creek ceramics at 9Tp70 and Swift Creek ceramics at 9Tp859. Gresham (1988) reports Cartersville Check Stamped sherds from 9Tp865. The present testing project recovered check stamped ceramics at 9Tp62, 9He76, and 9He128 and check stamped and Swift Creek Complicated Stamped ceramics from 9Tp366. At Site 9Tp62, a feature containing pure Cartersville Check Stamped ceramics yielded a radiocarbon date of A. D. 80.

Examples of Woodland period projectile points were recovered on three of the sites investigated during the present project, and include the Coosa Notched (9He76), Mountain Fork (9He76), and New Market (9He128, 9Tp366) types. Two unidentified small projectile points, presumably of the Woodland period, were found on Sites 9He128 and 9He76.

Johnson (1980) found 14 Woodland sites in his upland transmission line survey, but was not able to subdivide most of them into any shorter phase. Most of his sites produced sand tempered plain sherds, but five sites did produce Cartersville check stamped ceramics, three sites produced Cartersville Simple Stamped ceramics, one site produced Mossy Oak Simple Stamped ceramics, and one site produced Swift Creek Ceramics. Wauchope (1966:410) recovered Deptford Check and Deptford Simple Stamped ceramics, along with Early Swift Creek ceramics from 9He1, and a similar component at the Vandiver and Annewakee Creek sites in Douglas County upstream from the West Point Reservoir. To the south in the Oliver Basin, McMichael and Kellar report Deptford-Cartersville sites having check and simple stamped ceramics.

In the Walter F. George Reservoir, Knight and Mistovich (1984) identify several Middle Woodland phases: a Shorter Phase characterized by plain and check stamped pottery (ca. 300 B. C. - A. D. 1), and a later Mandeville Phase (ca. A. D. 1-300) which resembles the Shorter Phase with the addition of Swift Creek and Cartersville Simple Stamped ceramics. The Mandeville Phase can be further subdivided into Mandeville I and II: Mandeville I contains minor amounts of Dunlap Fabric Marked and West Florida Cord Marked, while Mandeville II contains some Crooked River Complicated Stamped and lacks the Dunlap and West Florida types (Mistovich and Knight 1986:118). In a further refinement based on testing at 9Sw71, Mistovich and Knight (1986:118) recognized an unnamed transitional assemblage where some late Swift Creek folded rims and some Weeden Island pottery appear added to a basic Mandeville II complex. This is followed by the Kolomoki Phase, which is dominated by Kolomoki and Blakely Complicated Stamped, folded rims, some Weeden Island ceramics, and an absence of check and simple stamping (Mistovich and Knight 1986:118).

To the west in the Rother L. Harris Reservoir on the Tallapoosa River in the Alabama piedmont, Knight (1980) defined the Crooked Creek Complex. The ceramic assemblage of this complex includes sand tempered plain, Cartersville Check Stamped, Booger Bottom Linear Check Stamped, and Early Swift Creek Complicated Stamped, while lithics are dominated by medium isosceles triangular points. He also reports minor occurrences of Dunlap Fabric Marked in this complex. Site types include hunting-foraging camps, rockshelters, and riverine camps.

Sites in the West Point Reservoir are poorly known, but local phases similar to the early Middle Woodland Shorter Phase and the later Middle Woodland Mandeville/Crooked Creek appear to be present. A radiocarbon date obtained from Feature 5 excavated at 9Tp62 falls within the Middle Woodland Mandeville Phase date range as proposed by Knight and Mistovich (1984), however, the

material assemblage appears to be more similar to the Shorter Phase assemblage. Further research is needed to sort-out chronological associations and for sequence development. Beyond these basic concerns, research attention should be focused on horticultural development and settlement/subsistence strategies. The disappearance of storage features on Middle Woodland Georgia piedmont sites has been taken as evidence for decreased reliance on nut resources, while the creation of large village sites along river floodplains suggests an increase in horticulturalism. Analysis of macroplant remains recovered from site 9Tp62 indicates a mixed economy based upon the gathering of wild foods and the cultivation of plants including goosefoot, knotweed, maygrass, and persimmon. Besides the information obtained from this one feature, little else is known concerning the Middle Woodland diet in the project region, and hence the examination of sites with intact features and ethnobotanical remains should be a research focus of future site studies.

Late Woodland

The Late Woodland phase represents the development of social organization, subsistence strategies, and perhaps ideological structure which would form the foundation for the following Mississippian Period. During the Late Woodland, village structure apparently intensified, and the origins of an agricultural economy are suggested by the presence of corn and squash remains at late Woodland sites. Diagnostic attributes of late Woodland culture defined in north Georgia include the Swift Creek and Napier ceramics. Late Swift Creek assemblages are characterized by an increase in the incidence of plain pottery and folded rims, the development of more complicated stamped designs including some zone stamping, and a decrease in the occurrence of notched and scalloped rims. Such traits are dated to the period from A. D. 500 to 700. Napier traits, originally defined from excavations on the Macon Plateau in the 1930s, include narrow rectilinear complicated stamping ceramics apparently fired in a reducing atmosphere and hence distinguished by dark black to grey coloring. Napier appears to date to the terminal phases of the Late Woodland, at around A. D. 700 - 800 (Anderson and Joseph 1988:232). Wauchope (1966) and Garrow (1975) note that the Swift Creek/Napier association appears to be ancestral to the Woodstock phase of the subsequent Mississippian Period. Along the lower Chattahoochee, Walthall recognizes a transition from late Swift Creek to Weeden Island wares during the period around A. D. 800. Weeden island ceramics are generally flat-bottomed and decorated with punctation and incision. Thomas et al. (1983) also note their occurrence within the lower Chattahoochee, thus speculating that the region returned to a Gulf Coast association during this time span. Within the project area, then, the presence of a Swift Creek - Napier sequence or a Swift Creek - Weeden Island transition requires evaluation if the cultural association of the region is to be understood.

The Late Woodland occupation of the region appears to have been ephemeral, and represents one of the least documented components defined from studies at West Point Lake. Hally and Rudolph (1982:82) list no sites of the Late Woodland period in their survey of the Reservoir. Sites which contain Early Swift

Creek pottery, many of which probably conform to a late Middle Woodland period, have been identified in the area. In the present project, Swift Creek pottery was found at 9Tp366, and Cottier et al. (1981) report Swift Creek ceramics from 9Tp70 and 9Tp859. None of these sites are reported as Late Swift Creek, however.

In the Oliver Reservoir, Late Woodland sites with late Swift Creek ceramics and Weeden Island material are extremely rare (McMichael and Kellar 1960:209-210). Below the fall line in the Walter F. George Reservoir, Knight and Mistovich (1984:220-222) identified the Quartermaster Phase: a local manifestation of the Late Swift Creek - Early Weeden Island complex. They date this phase to ca. A. D. 500-750. It is followed by a poorly represented Late Weeden Island-Cat Cave Complex. They suggest that in the fall line area, the Late Woodland may be represented by David Chase's Upatoi Complex, a "plain pottery complex with rare occurrences of 'ripple tooling' and Carrabelle-like chevron incising at the rim" (Knight and Mistovich 1984:222).

North of the West Point Lake area on the Chattahoochee, there is clear evidence of Napier ceramics at several sites. Even in Heard County, Wauchope recovered Napier ceramics (the major component) at site 9He1. Further upstream, Dickens reports abundant Napier ceramics from the Anneewakee Creek site in Douglas County (Dickens 1975). Thus, a Napier occupation could be expected for the western Georgia piedmont.

The relative paucity of Late Woodland sites and materials from the project area and the apparent interaction at this point in time between Gulf Coast (Weeden Island) and piedmont (Napier) traditions suggests that the project area may have served as a cultural buffer between these cultures, and hence would not have witnessed a significant occupation. Future research of the Late Woodland in the project area should attempt to determine the limits and composition of sites dating to this period, with the relative absence of Late Woodland sites supporting the assumption of a buffer zone. If Late Woodland sites are identified within the project area, however, then the cultural affiliation of such might suggest the trend and direction of cultural associations for the subsequent Mississippian Period. Given the lack of perspective on the Late Archaic encountered at present, fundamental concerns of the presence/absence and potential cultural association of these remains are the most pressing issues which must be addressed by future research in the area.

THE MISSISSIPPIAN

The appearance of a Mississippian culture across the Southeast is recognized as the height of prehistoric social and ceremonial organization in North America. Hierarchically organized village communities, maize agriculture, the appearance of platform mounds, the intensification of ceremonial practices and the rise of chiefdoms are all recognized as definitive attributes of the Mississippian Period (Anderson and Joseph 1988:248). It is

during the Mississippian Period that culture traits become the most clearly defined, such that the definition of specific chiefdoms and territories can be advanced. As with the preceding Late Woodland phase, the project area appears to fall between the limits of defined Mississippian polities throughout much of the period. Anderson's (Anderson and Joseph 1988:317) reconstruction of the distribution of Mississippian polities throughout the period indicates the Middle Chattahoochee as peripheral to an Etowah - Little Egypt - Coosa province to the north and the Stillhouse/Macon Plateau - Stubbs/Duvall - Ocute/Altamaha/Ichisis/Toa provinces to the south (Figure 49). Despite its position outside of these hypothesized provinces, the region did witness a Mississippian occupation of some intensity during the later centuries of the Period, and this occupation may reflect the social fragmentation and dispersal of Mississippian culture in the sixteenth century.

Early/Middle Mississippian

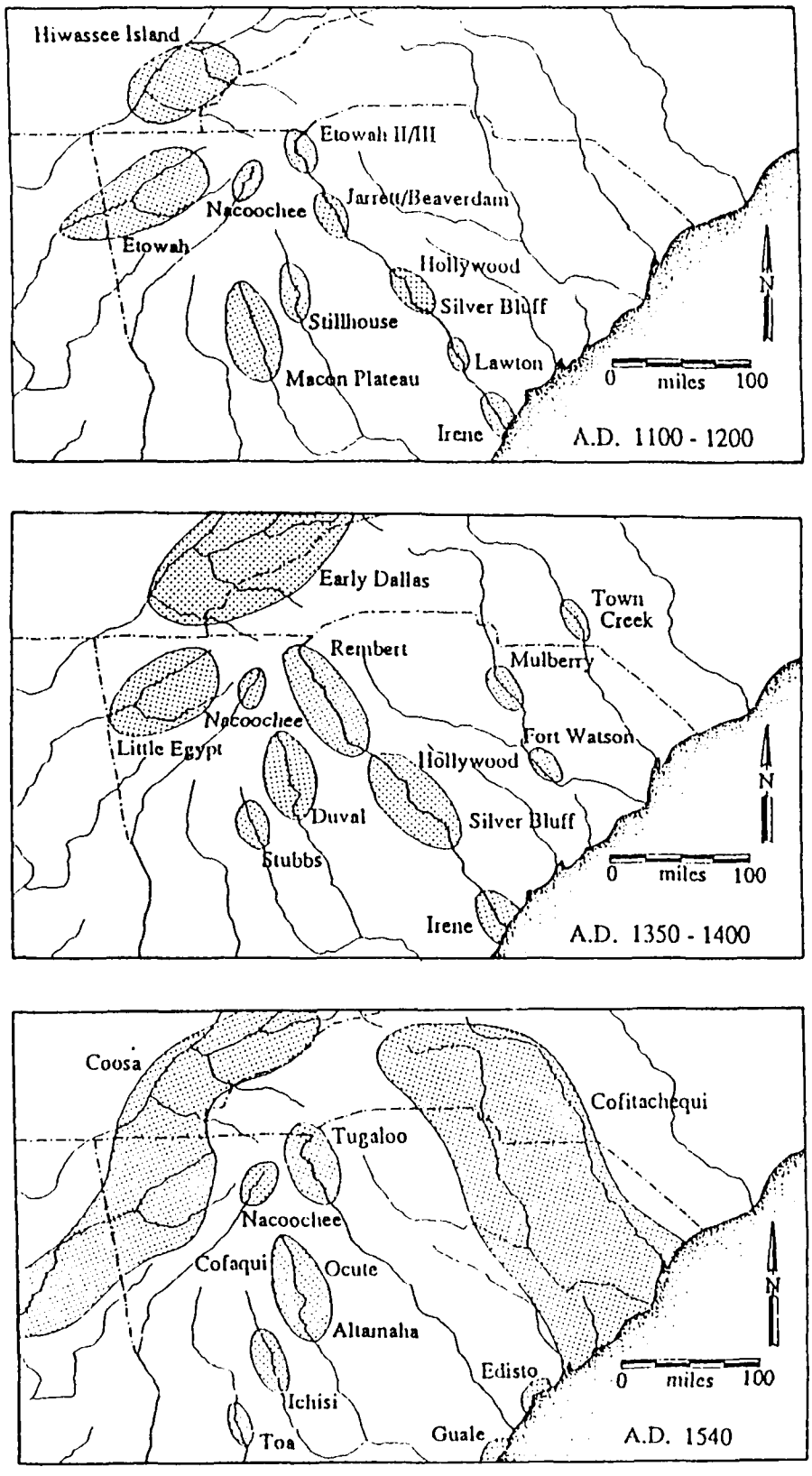
Early and Middle Mississippian (A. D. 900 - 1400) manifestations in the western Georgia piedmont are poorly understood at present. Rudolph and Hally (1982:82) report only two Early Mississippian sites from their work in the West Point Reservoir, but do not specify the type of occupation. Huscher (1972) reports an Averett occupation at site 9Tp40, the S. J. Bowers site, but this site was not excavated (see Chase 1963:51).

Johnson (1980:109) identified only ten sites as Mississippian, Protohistoric, and Historic Aboriginal in his transmission line survey analysis. The cultural association of most of these sites could not be further refined.

In the Oliver Reservoir to the south, McMichael and Kellar (1960:211-214) discuss Averett, Etowah II-III, and Rood Focus material which would be subsumed in the Early-Middle Mississippian time frame. The exact relationship between these three cultural entities have not been worked out to anyone's complete satisfaction. Averett culture appears to be most common near the fall line, while Rood appears primarily south of the fall line and Etowah primarily to the north.

The Averett Culture, defined by David Chase (1959; 1963) is known for plain, incised, and brushed ceramics found on large sites. Its northern limit seems to be West Point Lake, and its southern limit Stewart County, Georgia. Chase reports a fairly frequent association of Etowah ceramics on Averett sites, and also reports an almost complementary distribution of Rood phase sites in the Chattahoochee Valley. He suggests that Averett is centered on the fall line, while Rood is centered further south near Stewart County, Georgia (Chase 1963:51), and that the two cultures are contemporary. Averett peoples did not build mounds, but they did grow corn (Chase 1963:60). Knight and Mistovich (1984:223) estimate that Averett dates to the period of circa A. D. 1000-1250, based on cross dating with Rood Phase and Etowah sites.

Figure 49
Mississippian Polities in the South Atlantic Area



Source: Anderson and Joseph 1988:317

Sites of the Rood Phase are located in Stewart County, Georgia and Barbour County, Alabama, and no sites are known north of this area (Knight and Mistovich 1984:224 - but see McMichael and Kellar below). The Rood Phase is dated to the period of circa A. D. 900-1400 (Schnell et al. 1981). Sites of the Rood Phase contain a definite hierarchy of settlement, including multi-mound centers, single mound centers, and smaller settlements. The early portion of the Rood Phase is closely related to Moundville I or Bessemer in Alabama, and is marked by a high frequency of shell tempered ware. Late Rood Phase sites show some Lamar derived ceramic features, including pinched rim strips (Knight and Mistovich 1984:222-224).

Rood's Focus is "very poorly represented" in the Oliver Basin, but did occur at 1Le7, and Etowah manifestations in the area are "largely of thin impermanent nature" (McMichael and Kellar 1960:214, 211). If the Mississippian component at 1Le7 is truly a Rood's Focus manifestation, then Knight and Mistovich's northern border is extended well into the piedmont. The Etowah presence defined for the Oliver basin seems to be most like Etowah II and III defined for northwestern Georgia. It thus appears likely that the Oliver Basin area was a virtual no-man's land during the Early-Middle Mississippian Period.

Within West Point Lake, one Etowah sherd has been recovered from the Avery site (Dr. David Hally personal communication 1990), and "unidentified stamped" ceramics with Etowah motifs have been recovered in small quantities from the Park site (Hally and Oertel 1977:42-43). The Park site ceramics were believed to belong to an early Lamar component. It is clear that there is no major Etowah occupation in the West Point area. The first major Etowah site recorded for the Middle Chattahoochee as one proceeds upriver is the Sandtown Site, 9Fu1, near Atlanta (Wauchope 1966).

Another Early Mississippian cultural manifestation to be considered in any discussion of the Middle Chattahoochee Valley is the Woodstock culture. Woodstock ceramics have been reported from Vandiver site (Do-1), Anneewakee Creek (Do-2), Sandtown (Fu-1) (Wauchope 1966) and Peeblebrook High School in Cobb County (Meier and Pennington 1970). Clearly Woodstock is not an important entity in the West Point Lake area, but becomes more important further upstream.

Late Mississippian

Late Mississippian (Lamar) manifestations in the area of West Point Lake have been considered as either simply "Lamar" (Hally and Rudolph 1986), Bull Creek Phase (Hally and Oertel 1977), or Avery Complex (Knight 1980). Knight (personal communication 1989) sees the Lamar occupation in the West Point Lake area as distinct from the "true" Bull Creek Phase named after the type site just south of Columbus on the coastal plain. Hally (personal communication 1989), after more research into the late prehistoric complexes of the Georgia piedmont,

believes that the Lamar at West Point Lake should probably be a separate phase, but disagrees with Knight's Avery Complex, since it combines small sites on the Tallapoosa River with the sites in the West Point area of the Chattahoochee. Knight's sites are primarily small sites or rockshelters, while the West Point sites include the mound centers Park and Avery, as well as additional habitation sites. Research by Hally (1987) indicates that Mississippian polities are typically about 24 km in diameter, and it is therefore likely that a polity centered on the Park and Avery Mound sites in the West Point Reservoir would be distinct from the sites Knight describes in the Rother L. Harris Reservoir.

Whatever this Lamar manifestation is called, it is clear that there is a major concentration of sites in the West Point Lake area that probably center on the Park and Avery Mound sites. These sites appear to be largely contemporary, and presumably the Avery site, with its two mounds, would be the capital, although it should be noted that the Park Mound is larger than the largest mound at Avery.

Ceramics from these sites analyzed by Hally are presented in Table 38. The unpublished sample from Avery was provided by Hally, while the sample from Park Mound was obtained from Hally and Oertel (1977: Table 1).

TABLE 38. Late Prehistoric Ceramics from the West Point Area.

Type	Avery		Park	
	N.	%	N.	%
Incised	73	3.2	148	2.0
Comp. Stamped	486	21.4	1881	26.0
Check Stamped	35	1.5	25	1.0
Brushed	11	0.5	26	1.0
Plain (shell temp.)	47	2.1		
Plain (grit temp.)	1475	64.9	4567	62.0
Coarse Plain	143	6.3	600	9.0
Ala. River Applique	3	0.1		
Total	2273	100.0	7247	101.0

Hally (1979) has demonstrated that the width of folded rims increases through time in the Ridge and Valley Province of northwestern Georgia, and Rudolph (1983) has demonstrated that the trend continues in the eastern Georgia piedmont. Folded rim strip width averages approximately 18 mm for the Avery site (Hally and Oertel 1977:39), while they average 16.2 mm at Park (unpublished data supplied by Hally; N=69).

The ceramic rim data thus suggest that Park predates Avery at least partially. This trend is further amplified by the presence of the late type Alabama River Applique at the Avery site. While the late type Chattahoochee Brushed is

slightly more common at Park, the general low frequency of this ware makes comparison fruitless. It is possible that both sites were visited or lightly occupied later during historic aboriginal times. Assuming that the suggested trend is correct, then it might be inferred that complicated stamping is becoming less frequent over time, while incising is gaining in frequency.

Hally and Oertel (1977:50-51) identified the Park Mound assemblage as Bull Creek and dated it as roughly contemporary with the Barnett Phase of northwestern Georgia, or late sixteenth through early seventeenth centuries. It is now known that what is considered Barnett Phase predates 1600 and most sites of this phase date to the middle of the sixteenth century (see Smith 1987). This dating is believed to be applicable to the Park/Avery complex.

The Bull Creek Phase, named for the Bull Creek site just south of Columbus, Georgia (Patterson 1950:35-40), is best known from the reported assemblage at 9Cla51 further downstream (Broyles 1962). Bull Creek Lamar is characterized by a blend of Lamar and Gulf Tradition characteristics. Florida types Lake Jackson Plain, Pinellas Plain, and Fort Walton Incised are combined with a local variant of Lamar Complicated Stamped. Much of the incised pottery contains punctate decoration between the incised lines. Bull Creek Ceramics from 9Cla51 include 57.5 percent plain, 19.8 percent incised, 20.9 percent complicated stamped, and 1.8 percent check stamped treatments (Broyles 1962). These frequencies clearly differ from those seen at Park and Avery Mounds at West Point Lake. It would appear from these assemblages that north of the fall line incised pottery decreases in use, while plain and complicated stamped wares were used more often during the Bull Creek Phase. Knight and Mistovich (1984:224) estimate the Bull Creek Phase lasted from circa A. D. 1400-1550, and it is therefore probably contemporaneous with Park and Avery.

In the Oliver Basin, McMichael and Kellar 1960:216, note that there are many Bull Creek Focus sites, including both early and late Bull Creek. It is anticipated that a re-analysis of the Oliver material would show substantial differences with coastal plains area Bull Creek, judging from Hally's work with Mississippian polities in other parts of Georgia. It could therefore be anticipated that the Oliver material would more closely resemble the piedmont West Point Lake Avery/Park collections.

Knight (1980) has described the Avery Complex of the Rother L. Harris Reservoir in the piedmont Tallapoosa drainage of Alabama. Knight picked the name Avery based on a discussion of vessels from the Avery Mound site in West Point Lake (Gail Schnell in Huscher 1972), which appeared at that time to be similar to his material. With the availability of better descriptions of the Avery Site and Park Mound ceramics, it now appears that Knight's Avery complex on the Tallapoosa is significantly different than the material from the mound sites in the Middle Chattahoochee Basin. Some comparisons appear valid: plain pottery is the most common surface treatment in both areas, but there are major differences in decorative treatments. The Rother L. Harris sites have Lamar Bold Incised and Lamar Complicated Stamped in "equally substantial proportions," while the West Point sites have very little incising and much more complicated

stamped treatment. Using data presented by Knight (1977:Table 22) for Lamar and other late ceramics (excluding Woodland and Etowah material), there is three percent complicated stamped, 4.1 percent incised, and 92.1 percent plain ceramics from site 1Ra28, his major Avery component. The West Point sites have a consistent, although small, quantity of check stamped ware, while Knight reports an absence of check stamping from his Tallapoosa area Avery Complex. Knight estimates that the Avery Complex existed between A. D. 1300 to 1600 (Knight 1980:23).

The present project investigated three sites (9Tp366, 9Tp62, 9He76) containing Late Mississippian components, which appear to be most similar to Knight's Avery Complex and not at all like the Park and Avery mound assemblages. As in the Avery Complex, all three sites were dominated by plain ceramics with lesser amounts of incised and stamped wares. However, the project sites diverge from the Avery pattern in the percentage of incised and complicated stamped ceramics comprising the assemblage (Table 39). Instead of equal representation of these types, the percentage of incised and stamped wares varied, with Sites 9tp62 and 9He76 exhibiting far more incised sherds than complicated stamped wares. Site 9Tp366, on the other hand, yielded more complicated stamped ceramics than incised wares. The percentage of complicated stamped wares on this latter site is still well below those reported for the Park or Avery Mound Sites. Conversely, the Park and Avery mean fold width data brackets the mean fold widths calculated for Sites 9Tp62 (mean of 16.6 mm), 9Tp366 (mean of 17 mm), and 9He76 (mean of 17.7 mm), suggesting the contemporaneity of these occupations.

Additional evidence gathered suggests that at least two of the sites (9He76, 9Tp62) could postdate the Avery and Park Mound Complex or at least contain components reflecting later occupations. Feature 17, excavated at 9He76, yielded small quantities of brushed pottery typical of late seventeenth and eighteenth century sites. There is now good evidence for a brushed pottery horizon style in eastern Alabama and western Georgia beginning in the seventeenth century. Knight has defined the Atasi Phase (Knight and Smith 1980; Knight 1985) as associated with brushed pottery. In the original formulation of this complex, Knight and Smith dated it to the period of A. D. 1550-1700. In a later study, Knight dated brushed pottery, which he calls Chattahoochee Roughened, as beginning about A. D. 1600 on the lower Tallapoosa and in the Kymulga Phase of the Middle Coosa River drainage (Knight 1985:188). Smith (1989) has recently studied the upper Middle Coosa River drainage (north of Knight's Kymulga Phase area) and he finds that brushed pottery appears suddenly at about A. D. 1630. On the Chattahoochee south of the fall line, Knight and Mistovich (1984) defined a number of ceramic phases. The first of these to contain late brushed ceramics (as distinct from earlier Averett Brushed) is their Blackmon Phase (A. D. 1650-1715) which contains the type Walnut Roughened (the shell tempered equivalent of Chattahoochee Brushed). Thus there is evidence of a brushed horizon style beginning in the early to mid seventeenth century on three different drainages: the Coosa, Tallapoosa, and Chattahoochee rivers. The significant point here is

TABLE 39. Comparisons of Mississippian Phase Traits

Ceramic Assemblage Traits	Early Lamar				Late Lamar						Project Sites		
	Stubbs	Duvall	Stamp Creek	Little Egypt	Bull Creek	Avery	Cowarts	Dyar	Brewster	Barnett	9Tp366	9Tp62	9He76
Plain*	50	90	64	81	71	92	50	73	16	79	86	91	90
Incised **	2	8		2	2	4	15	18	14	11	1	6	7
Com.Stamped	49	2	36	10	26	3	35	8	70	10	3		1
Cord Marked				7									
Check Stamped					1							<1	
Brushed					1			<1				<1	<1
Mean Fold Widths (mm)	13.6		11.1	16.2					16.8	17.0	16.6	17.7	
					18.0			18.4					
								19.1					
								21.1					

* Combined Plain Categories

** Combined Incised Categories

Adapted From Hally and Rudolph 1986

that site 9He76 lacks the relatively high frequency of complicated stamped ceramics that characterize the earlier Park/Avery complex, but contains evidence of brushed wares similar to the Blackmon phase wares on the lower Chattahoochee. This site therefore must contain an occupation dating to the mid seventeenth century. Alternatively, Site 9Tp62 yielded no evidence of brushed pottery, small quantities of complicated stamped ceramics, and large quantities of incised sherds. These three assemblage traits suggest a slightly earlier date than Site 9He76 and could place the Site 9Tp62 occupation sometime between the period A. D. 1575 and 1630.

The problem of component identification on project area sites is a difficult task. For example, the present project recovered a very diagnostic early (circa A. D. 1400) Lamar pinched rim from site 9Tp366. This rim form is comparable to those from the early Lamar Duvall Phase occupation of the Dyar Site, located in the eastern Georgia piedmont on the Oconee River (Smith 1981), and is probably an indication that there is an occupation in the area equivalent to early Bull Creek. However, the calculation of the mean fold width for the site assemblage yielded 17.0 mm, well within the range of mean fold widths reported for Late Bull Creek, Dyar, and Barnett Phase assemblages (Table 39). Without proper controls, mean fold width calculations can mask important information on component variability. At Site 9Tp62, the overall mean fold width for the site was 16.6 mm. However, a spatial analysis performed on individual rim fold measurements yielded two distinct artifact clusters with significantly different mean fold width averages. One cluster exhibited a fold width average of 15.61 mm, while the second cluster yielded a mean fold width of 19.0 mm. These results clearly show two separate occupations at the site, with the earliest Late Mississippian occupation occurring along the present day shoreline and the later occupation spreading along the small tributary to the south. The use of spatial analyses in concert with other techniques for determining chronological variability should provide useful data to future researchers working on Late Mississippian sites in the Middle Chattahoochee Basin.

HISTORIC ABORIGINAL

The Mississippian groups which inhabited the Chattahoochee River Valley of Georgia and Alabama during the first throes of European contact were agriculturalists, primarily cultivating maize, beans and squash. Other cultural traits - the construction of mounds, the village sites recovered archeologically, and the diversity of material culture found associated with these contexts - suggest that individuals within these groups were organized by rank. This was the cultural scenario first witnessed by the Spanish explorers of the sixteenth century. From an archeological perspective, Hally (1982) notes that while Creek Indian villages were still extant on the Middle Chattahoochee in the late seventeenth century, cultural activities within these agricultural villages had changed demonstrably. Mound construction had ended, the material culture of these groups had become more uniform, and English trade goods had made

inroads into the aboriginal way of life. These changes were a result of cultural contact with the explorers, traders, and missionaries who entered the interior, and the competition that ensued as Europeans groups vied for control of the Indian trade, land and religious beliefs. Disease also played a major role in the disintegration of the aboriginal societies within the southeast.

While the French, Spanish and English were part of the frontier scene, the English were ascendant along the Middle Chattahoochee until the American Revolution. After the Revolution, the West Point Lake area received an influx of settlers and traders (Hally 1982:17). In the late 1790s, it also received Benjamin Hawkins, the fledgling government's "Chief Temporary Agent for Indian Affairs South of the Ohio River." While Hawkins had not really been given a job description along with his title, he defined his own position, casting himself as an educator and buffer between the Americans and the Indians under his charge. To Hawkins, the goal to be achieved was assimilation rather than eradication or exile. The years he spent on the frontier until his death in 1816 were organized toward this end. Hawkins left both a personal journal and correspondence, both of which detail his experiences among the Creek and cultural life on Georgia's frontier (Fretwell 1954:147-185).

Hawkin's writings include a travel itinerary of his route through the Chattahoochee Valley in 1798. This document has helped to shape both archeological and historical interpretations about the period when Creek Indian villages dominated the valley. Using Hawkins's itinerary and other data pulled from similar travel literature and cartographic sources, contact period scholarship has gravitated toward reconstruction. From the documentary record, the names of a number of Creek towns, mentioned by various contemporary visitors can be elicited and to a certain degree associated (Table 40). The locations of some of these towns, however, is not forthcoming from the literature. Hence, the archeological record has been studied to enhance the documentary record and as a contributing source of scientific knowledge. The archeological record indicates that eighteenth-century Creek towns were often comprised of households scattered over large areas, and were not the compact towns of the sixteenth century. Thus a grouping of separate sites may actually represent one "town." Ceramics found at historic aboriginal sites within the West Point Reservoir area include Chattahoochee Brushed, Ocmulgee Fields Incised, plain and perhaps red filmed ceramics.

Huscher has identified several archeological sites in the reservoir as named Creek towns following a reconstruction of the route of Benjamin Hawkins in 1798 through this part of the Chattahoochee Valley by the historian Mark Fretwell (1954), and using maps from John Swanton's *Early History of the Creek Indians and Their Neighbors* (1922). Fretwell (1954) used the precise travel time recorded by Hawkins (in hours and minutes) and using Hawkin's own estimate of three miles per hour to reconstruct his route along the western bank of the Chattahoochee River. Hawkins mentions stream crossings and Indian towns, seemingly making the reconstruction of his journey a simple matter. The reconstruction of Fretwell is given added credence by the fact that he places the

town of Okfuskenena, the Burnt Village, exactly at the known archeological site. Apparently, Okfuskenena was never lost to history, and its location has always been known (Huscher 1972). The route hypothesized by Fretwell also placed the town of Ocfuskooche Tallahassee at an appropriate archeological site (Tp2), located just below West Point Dam. North of Okfuskenena, Fretwell's reconstruction falters, failing to place other Creek towns at any of the other known historic aboriginal sites. He placed the town of Chau-kea-thluc-co about one mile north of Brush Creek, and Huscher identified site He10 as the probable location. Unfortunately, He10 does not have the appropriate component. A search through the site files of all sites (24) from the mouth of Brush Creek to a point three and a half miles upstream on the appropriate west bank failed to locate any sites with an historic aboriginal component. Apparently Brush Creek is not the correct creek in Hawkins' itinerary. Fretwell also located Chattahoochee Tau-lauhass-ee as being 1.3 miles south of Franklin, Georgia, although he notes that John Goff placed it some four and a half miles below Franklin (Fretwell 1954:25-26). There are no known historic sites in either location. The nearest known historic aboriginal site is He128, located some seven and a half miles south of Franklin, and on the east side of the river.

TABLE 40. Creek towns in the West Point Reservoir Area.

Bartram (1777)	Swan (1791)	Hawkins (1798)	Early Map (1818)
Chockeclucca	Chelucconinny	Okfuskooche Tallah.	Okfuscoochee Tall.
		Okfuskenena	Oakfuskeenene
Chata Uche	Chattahoosee	Chaukeathlucco	
		Chattahoochee Tallah.	Chattahochee O.T.
		Totepaufcau (pre 1777)	
Checlucca - ninne		Chelucconene	
Hothletega	Hohtatoga	Hoithletigau	

Sources: Bartram (1973); Swan (1971); Hawkins (Fretwell 1954; Hawkins 1848); Early Map of 1818, showing abandoned towns, reproduced in Swanton (1922).

Within West Point Lake, ten sites are assigned within the site files to the historic aboriginal period, including the Burnt Village or Okfuskenena (9Tp9); the Faulkner Site (9Tp2), believed to be the site of Okfuskutchie Tallahassee; the Brush Lanier Site (Tp35), believed to be the site of Hothlitaiga; Sites 9Tp24 and 25, believed to be portions of the town of Chulakonina; and the Brush Creek Site (9He10), believed to be Chocothlucco (Huscher 1972). The last identification, probably made on the basis of Fretwell's reconstruction of Hawkins route, is problematic, as the site files mention only Archaic, Woodland, or possible Mississippian occupation at that site. Sites 9Tp867 and 9He128, investigated by the present project, also have occupations during the historic aboriginal period. Sites 9Tp859 and 861, located by Cottier, Sheldon, and Waselkov (1981) may also have historic aboriginal components, but the collections are quite small. Hence, there are several historic aboriginal archeological sites which have not been correlated

with known historic towns. Although these seven sites are listed separately when viewed as a group, they actually form three site areas. As eighteenth-century Creek villages were composed of scattered households over large areas, these sites (Tp35, 24, 25 ,867) may well represent one "town;" sites Tp859 and 861 another; and site He128 yet a third settlement.

Historic aboriginal occupation of West Point Lake is marked by the presence of the ceramic types Chattahoochee Brushed, Ocmulgee Fields Incised, plain, and perhaps red filmed ceramics. No ceramic counts from the excavated sites of this period in the reservoir are available, and it is not possible to determine, at this time, how the sites of the Middle Chattahoochee differ, if at all, from sites of this time period on the Lower Chattahoochee in the Walter F. George Reservoir, where Knight and Mistovich define a Lawson Field Phase (1984:226).

HISTORIC ANTEBELLUM PERIOD

As each section of Georgia's interior was opened up for settlement, Georgians from the older counties along the coast and others from the Carolinas moved westward. In the main, nineteenth-century Georgia farmers did not practice scientific farming, preferring a different land strategy possible in a state which seemed to forever increase its land holdings. Most farmers worked the land until exhausted, then moved westward where fertile land was available. The settlement of the West Point Lake area was no exception to this adaptation. By the 1860s western Georgia and eastern Alabama would become the most productive cotton producing areas in the piedmont (Hally and Rudolph 1982:19). Plantations and farms soon organized the countryside, geographically punctuated by towns such as Columbus and LaGrange as well as a miscellany of cross roads communities. The realization of the agricultural potential of the region resulted in the establishment of industries associated with agriculture, particularly milling. By the 1850s, many farmers and planters recognized that scientific farming procedures were needed to refurbish the soil which was nearing exhaustion. Thus horizontal plowing, terracing, and the use of fertilizers became part of farming in Georgia (Hally and Rudolph 1982:20).

Fretwell (1954) notes that the newly founded town of Columbus (1828) was visited by steamboats traveling north from the Gulf even before the town lots were ready to be sold. While the steamboat traffic was largely confined to the river below the fall line, one steamboat line did traverse the Chattahoochee between West Point and Franklin for a brief period of time. The difficulty in negotiating this passage ended this leg. Thus, overland travel was primarily used to bring cotton bales and other goods to Columbus, which were then shipped via steamboat down river to the Gulf for transhipment to northern ports. The establishment of the railroad critically ended the hold the steamboat had on cotton distribution. By the mid 1850s, cotton was shipped on railroad lines merged at West Point which connected Montgomery and Atlanta (Hally and Rudolph 192:20). The upper Chattahoochee, unnavigable due to the plethora of shoals above Columbus, was

perceived in a new light as industrial entrepreneurs began to locate there. Columbus would have four textile mills, a paper plant, flouring mills and a miscellany of other industrial enterprises by 1850 and a population of 10,000 whites and 8,000 slaves. A contemporary visitor wrote with full nineteenth-century vigor about the area and its industrial potential (quoted in Fretwell 1954:250):

> Those who then shall roam the green earth shall see thy long river staircase, from Columbus to West Point, one climbing street of palladian mills, from whose lofty windows toward that street's upper end operatives will regale their eyes and hearts with the ever fresh aerial beauty of the Pine Mountain.

The street of "palladian mills" along the river was recognized to an extent but its progress was interrupted by the Civil War.

Hally and Rudolph's survey found a variety of site types within the project area which are representative of the area's antebellum history. Domestic structures are the most numerous: log, frame, and rock structures were part of their site inventory. Some of these sites had standing structures while others featured archeological remains or single elements such as wells. Unfortunately, many of the site identifications are not detailed enough to confidently assign status or function. Other site types included: "agricultural complexes" (dwelling, fields and outbuildings), cemeteries, and mills. There were at least six cemeteries encountered, the earliest dating to the 1850s. 9Tp108 has at least 50 graves within a walled area adjoining a church; the remainder may be family plots. The name of the congregation was not given. Finally, the study area contained the remains of industrial activity such as sawmills, grist mills and at least one still.

RECONSTRUCTION TO THE SECOND WORLD WAR

Personal losses and the breakup of the antebellum economy were the major impacts of the Civil War upon the study area. In 1870, the Federal Census enumerated 5,218 whites and 2,648 blacks in Heard County; Troup County's black population numbered 11,224 and outnumbered the white inhabitants by 4,816. Troup County was slightly larger than Heard and would consistently have at least twice as many inhabitants through the opening decades of the twentieth century. In 1880, Heard County had 952 farms and 20 manufacturing establishments. Troup County had 2,003 farms and at least 81 manufactories. Industries which had begun before the war continued to flourish and new businesses were established. Textile companies such as Callaway Mills, Dunway Mills and West Point Manufacturing Company all became part of the study area's economy (Hally and Rudolph 1982:23-24).

The majority of those involved in agriculture were either sharecroppers or tenants, as many landowners had moved into towns, a trend which predated the

war (Hally and Rudolph 1982:21). Unfortunately, neither sharecropping nor tenancy were tolerant of the land, intensifying agricultural problems which existed before the war. The economics of the agricultural system in which they were placed predicated that tenants and sharecroppers be focused upon the yield of the annual crop, not with long range concerns. Erosion; over-intensive crop production, particularly of cotton; and landlord absenteeism all aided in the problems with soil fertility which emanated. Cotton cultivation rebounded prior to World War I only to decline after the war due to the boll weevil, the Great Depression, and advances in agricultural technologies.

One source notes that early in the century the distribution of the black population duplicated the area known as the South's cotton belt. With the decline of cotton farming came about a tremendous demographic change as men and women left fields in search of work in the cities. Many blacks migrated from the South to northern cities at this time, and many workers turned to textile mills as a source of income. From 1930 to 1940, Heard County's population decreased by slightly over five per cent and in the next decade by another 19 percent. Troup County on the other hand had a 19 percent increase between 1930 and 1940 and an additional increase of 13.6 percent between 1940 and 1950 (U. S. Federal Census, Population Statistics, Compilation). The large number of textile mills and other industrial enterprises in Troup County probably attracted potential workers, whereas the more agricultural Heard County lost a substantial number of people.

Hally and Rudolph's survey identified historic sites which were typical of the cultural development of this time period, notably house sites, the remains of farm complexes, churches and cemeteries. Young's Mill, identified as a postbellum mill complex,is an example of an industrial site within the study area (Espenshade and Gardner 1989). It should be noted that the survey did identify the remains of a small town named Grabbol or Owensbyville (9He90) which had a store, post office, church, cotton gin, and 500 inhabitants at one time. As noted earlier, the material at the historic sites is not sufficiently described, so it is difficult to ascertain which of the many historic sites fall into this time period.

VII. CONCLUSIONS AND RECOMMENDATIONS

The investigations at West Point Lake resulted in the location and identification of 14 cultural resources within the six designated survey tracts and an intensive evaluation of six previously recorded sites. Nineteen of this total of 20 sites are prehistoric, while one represents a historic aboriginal occupation. These resources have been described and analyzed with respect to identifiable cultural components (ie. diagnostic lithic and ceramic artifacts), the spatial relationships of the various components, the characteristics of preservation and site integrity, and the distinctiveness of the material assemblages compared to other coontemporenanous groups occupying different drainages.

The 19 prehistoric sites and one historic aboriginal site investigated during the present project indicate that the project area was occupied from the Early Archaic (8,000 to 6,500 B. C.) through the Historic Creek (A. D. 1800), although differences in the intensity of use are suggested by the frequencies of temporally diagnostic artifacts representative of different cultural-historical periods. Early Archaic components are present on five sites, Middle Archaic on three sites, Late Archaic on three sites, Early Woodland on two sites, Middle Woodland on five sites, Late Mississippian on nine sites, and Historic Creek on one site. Occupational intensity significantly increases during the Late Mississippian period, with large sites located near the confluences of the river and permanently flowing streams occurring. Diagnostic artifacts representative of the Early Archaic period are evenly distributed among the sites, while a vast majority of the Middle Archaic and Late Archaic diagnostics are found on two sites.

IMPACTS

Nearly all of the archeological sites investigated during the present project are either inundated when the lake is at normal pool level or periodically flooded during periods of high water. In either case, erosion, redeposition, wave action, and sedimentation have various deleterious effects upon these cultural resources (Mosley 1974, 1977; Baker 1977; Butler 1977; DuBois 1976, 1977). Schnell (nd) has noted several destructive forces occurring in reservoir settings, including the scouring of deposits and gravity erosion due to wave action. The effects of scouring are most often restricted to the middle reaches of the reservoir, and result in bank undercutting and the formation of stream meanders. Wave action, on the other hand, affects both the upper and middle portions of the reservoir and, like scouring, results in bank undercutting. While the process of undercutting by wave action is not as rapid as scouring, over the long term it can destroy archeological sites located along the shoreline.

Of the six archeological sites tested during the present project, five exhibit impacts directly related to fluctuations in the West Point Lake pool levels. All five of these sites exhibited areas where recently deposited sediments covered the A

soil horizon or old plow zone. Site 9He128 exhibited the greatest impacts, where recently deposited soils extended over a half meter deep on the north and south ends of the site. This was not unexpected, given its location on the outer bank of a major bend in the river which is scoured during high lake levels and which receives alluvial deposits during receding or lower lake levels. Both scouring and depositional processes are evident at the site, with the deposit of recent sands on both ends of the peninsula and the beginning of a new meander (mudflat) through its center. Site 9Tp366 is located on the same bend of the river as 9He128, but further down stream where the stream flow against the south bank is of less intensity. At this location, the high velocity flow is returning to the middle of the channel, resulting in the formation of small eddies along the southern bank. These backwater currents have carried away much of the soil from the western part of the site and created a large mudflat area. The eastern portion of the site is slightly higher in elevation and has been spared, at least for the present, from the brunt of this erosive force. However, the eastern edge of the site has received bank undercutting due to both scouring and wave action. Sites 9Tp867 and 9Tp294 have been severely scoured by high velocity water and exhibit little intact soil deposits. Site 9Tp867 is located on the inside of a bend of the Chattahoochee River, while Site 9Tp294 is similarly located on a bend of Whitewater Creek. During normal pool level the high velocity water flows directly over each of the site areas with sufficient force to lift and suspend the solum materials from their original context. Conversely, Site 9Tp62 is located along a portion of the river valley that is relatively straight, with little or no meandering of the main river channel. This site exhibited one of the best intact soil deposits recorded for the project. Clearly, over the years the frequent inundation of the site has resulted in the removal of the upper-most deposits, but the bottom of the old plow zone is still recognizable and in the central portion of the site behind the top of the terrace the remnants of a buried cultural midden are present. The site is being impacted by both scouring and wave action along its eastern edge during low lake levels.

Other forms of impacts have affected these sites prior to construction of the lake. Each of these sites exhibits evidence of having been cleared and farmed during the historic period. The process of clearing forests, particularly with heavy equipment, can impact a site by spreading, grinding, and compressing materials from their original context (Medford 1972). The effects of farming on archeological sites are well-documented, and involve the displacement of artifacts both horizontally and vertically within the soil horizons (Medford 1972). At Site 9He76, which is the only site spared from frequent inundation, agricultural activities serve as the most prevalent form of impact. The site exhibits a shallow plow zone capping a red clay subsoil. Within this subsoil, a large number of cultural features have been discovered which have been impacted by modern machinery capable of extending the plow zone to greater depths and cutting into the tops of the features.

SIGNIFICANCE EVALUATIONS

Before sites can be evaluated as being a significant resource, they must meet one or more of four specific criteria: A, B, C, or D established in 36CFR Part 60, National Register of Historic Places, Nominations by State and Federal Agencies and 36CFR Part 800, Advisory Council on Historic Preservation, Protection of Historic and Cultural Properties. These criteria function within the context of relevant historical themes or patterns identified as important by the project research design. The four criteria are:

Criterion A: Properties that are associated with events that have made a significant contribution to broad patterns of our history;

Criterion B: Properties that are associated with lives of persons significant in our past;

Criterion C: Properties that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that posses high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; and

Criterion D: Properties that have yielded, or may be likely to yield, important information in prehistory or history.

The evaluation of an archeological resource for inclusion on the National Register of Historic Places normally rests on the research potential of that site. More specifically, most archaeological sites are listed under the criterion "have yielded or may be likely to yield information important in prehistory or history." While this criterion is necessarily flexible, it is recognized that factors concerning the state of current knowledge for a region must be considered in combination with an evaluation of site integrity (McGimsey and Davis 1977:33). In order to provide significance evaluations, five research objectives were developed to guide the field work, laboratory analysis, and reporting efforts described in this report. The data gathered under the five objectives is then used to form a set of recommendations for mitigating adverse impacts on known sites in the West Point Lake project area. The project objectives included:

(1) Determination of site boundaries in order to establish the entity under observation, and to provide planning data for any recommended mitigation;

(2) Determination of site depth in order to define the site in three dimensional space, to offer a baseline for determining site integrity and to provide data for any recommended mitigation;

(3) Determination of site integrity as shown by the presence of features and the preservation of artifacts. If the site is not intact, then in order for it to be considered significant it must contain extremely good artifactual or other data which, in the absence of integrity, could be used to address important ongoing research questions in the region;

(4) Determination of the period of occupation. Time period is critical to addressing virtually any question in archeology and therefore to determining site significance; and

(5) Determination of site function. The determination of site function is critical since this attribute determines what research domains can be addressed by a particular site.

Significance evaluations for the sites included in the present project are broken into two categories: one concerning the sites recorded during the Phase I survey, and one which involves the sites that were tested during the Phase II investigations. This is necessary given the different levels of field investigation conducted on the two sets of sites. The field strategy during the Phase I Survey yielded data concerning the approximate size and depth of the sites, a preliminary assessment of their material contents, and an evaluation of previous impacts affecting site integrity. However, the field methods were not of sufficient intensity to evaluate the research potential of all 14 sites. For those sites exhibiting a potential for providing important information concerning the prehistory of the area, a potentially significant evaluation was invoked.

Survey Sites

Table 41 lists the sites discovered during the present project. Included in this table are site characteristics and a rank ordering of each sites' integrity and research potential. Rank ordering of a sites' integrity involved a consideration of the general surface condition and disturbances noted in the shovel test pit profiles. Sites exhibiting low integrity ratings represent sites where the ground surface and/or the subsurface soil deposits have been severely impacted by vegetation clearing, farming, or erosion caused by fluctuations in the lake level. Alternatively, sites assigned to the moderate to high integrity categories exhibited relatively deep soil deposits and/or surface conditions indicative of less severe destructive impacts. For instance, several site areas are located close to the permanent pool level of the lake, but still maintain a mixed hardwood-pine forest cover and deep soil deposits suggesting that the areas are not inundated or scoured by the lake.

TABLE 41. Phase I Survey Site Significance Evaluations

Sites	Size (m)	Artifact Frequency	Positive Shovel Pits	Cultural Diagnostics	Integrity	Research Potential	Evaluation
9He129	40x40	2	1	None	L	L	N.S.
9He130	30x20	8	6	1 sherd	L	L	N.S.
9He131	20x10	2	2	2 sherds	L	L	N.S.
9He132	50x40	9	5	2 sherds	L	L	N.S.
9He133	1x1	1	1	1 sherd	M-H	L	N.S.
9He134	60x50	13	5	1 PPt	L	L	N.S.
9He135	110x5	16	8	None	L	L	N.S.
9He136	1x1	1	1	None	L	L	N.S.
9He137	30x1	4	2	4 sherds	M-H	L	N.S.
9He138	100x50	85	4	4 sherds	M-H	H	P.S.
9He139	20x10	4	2	4 sherds	M-H	L	N.S.
9He140	50x30	29	9	27 sherds	M-H	H	P.S.
9He141	100x50	130	1	124 sherds	M	H	P.S.
9He142	40x20	14	5	12 sherds	L	L	N.S.

Legend

Integrity: L-Low; M-Moderate; H-High
Research Potential: L-Low; M-Moderate; H-High
Evaluation: N.S.-Not Significant; P.S.-Potentially Significant

Assigning a value to the research potential of a site is a more complicated matter which crosscut attributes of integrity and classes of data potentially important for interpreting the prehistory or history of an area. During the Phase I survey, the five research objectives (stated above) were used to evaluate the research potential of each newly recorded site. That is to say, if the field work and laboratory analysis resulted in a determination suggesting that a site could contain sufficient information to warrant inclusion to the National Register of Historic Places, then the site was classified as potentially significant. Several classes of data were considered in this determination, which include occupational history, horizontal and vertical integrity of soil deposits and site components, and quantity of artifacts useful for developing a regional cultural sequence. Eight of the fourteen sites listed above are classified as archeological occurrences that contained fewer than 10 artifacts. Three of the eight sites were found in shovel test pits exhibiting moderate to deeply buried soils, however additional shovel test pits excavated in the area failed to yield additional cultural materials. While these three sites received moderate to high ratings on integrity, they exhibited little potential for yielding sufficient artifactual material for dating and functional analyses and received a not significant (N.S) site evaluation. Six sites discovered during the survey yielded sufficient quantities of artifacts to be considered archeological sites (contained 10 or more artifacts). These six sites are discussed separately below.

Site 9He134 yielded an Early Archaic Damron projectile point, a biface, and debitage. Most of the materials recovered at this site came from a highly disturbed upper soil horizon that accumulated along the toeslope of a steep ridge. Only one shovel test out of 16 indicated the presence of intact soil deposits. As a result of the disturbance noted in the overwhelming number of shovel test pit profiles, the site received a not significant evaluation rating.

Site 9He135 yielded a quartz biface and numerous pieces of quartz debitage. The site is located along the top of a very narrow ridge that has been severely eroded. The soils that covered the red clay subsoil were less than ten centimeters thick and contained numerous roots and animal burrows. Besides the relative poor condition of this site, the artifact collection appears to represent a class of sites commonly found in upland piedmont settings. The redundancy of the Site 9He135 artifact collection to other and better preserved upland piedmont lithic scatters resulted in a determination of non-significance for this site.

Site 9He138 yielded artifacts along a deflated shoreline and in shovel test pits located in the interior of the site. The shovel test pits revealed the presence of deeply buried soils with clear stratification. Artifacts were recovered from the two upper soil horizons. The top horizon consisted of a clayey loam probably recently deposited by the lake. The origin of the middle horizon is unknown (this horizon was not encountered at other locations outside of the site boundaries), however, the possibility of a disturbed midden deposit cannot be dismissed at the present time. The size of the shovel test units precludes any final statements concerning the origin of this deposit and it should be investigated further using larger and more controlled excavation units. Site 9He138 also contained a large number of lithic artifacts. Previous artifact collections from the project area are overwhelmingly associated with the late prehistoric era, and are characteristically dominated by pottery sherds with relatively few lithic tools. The presence of such a concentration of tools at 9He138 is rather unique and offers the rare opportunity for the study of lithic technology in a floodplain setting. At present, no data exist for dating the lithic concentration or linking it with the artifactual material (pottery sherds) recovered from the shovel test units. Future work at this site should focus on the recovery of an adequate sample of lithic materials for detailed formal-functional analyses, determination of this site's relationship to the ceramic artifacts found in the shovel test pits, and the chronological placement of the occupation(s). The potential for recovering significant information on a range of research topics in addition to a moderate to high integrity rating resulted in a potentially significant evaluation rating for this site.

Site 9He140 yielded a relatively dense concentration of Mississippian ceramics over a rather small area. Mississippian period sites occur frequently in the project area, however, the majority of these sites are characterized as large village occupations with diverse ceramic assemblages. Conversely, Site 9He140 is very small and exhibits a homogeneous artifact assemblage. The fact that this site is small and situated in the middle of the terrace away from small tributaries increase its likelihood of being a single component site of short duration. The

advantage of investigating a site like 9He140 over the larger sites is its simplicity of structure and content. Future research at Site 9He140 could isolate and describe components of Mississippian subsistence-settlement patterns that are not represented by the larger, more complex, village locations. Therefore, Site 9He140 is evaluated as potentially significant due to its unique qualities of small size, high artifact density, and the horizontal patterning of artifact clusters across the site area.

Site 9He141 consisted of a dense concentration of Late Mississippian pottery sherds located in a plowed field. Archeological assemblages similar to those found at Site 9He141 are reported from other Late Mississippian sites in North Georgia and are dated to the Barnett phase occurring in the sixteenth and seventeenth centuries (Hally 1978:277). In the immediate project area, Knight has identified an earlier component of the Late Mississippian Period defined as the Avery Complex (Knight 1977; 1980). This Complex has been assigned a date range of approximately A.D. 1300 to 1600 and includes a material assemblage similar in many respects to that found at Site 9He141. Although assemblages previously described for north and west Georgia exhibit continuity with the materials recovered from Site 9He141, some important differences, which are believed to be temporally significant, do exist. Particularly noticeable is the absence of shell tempered and complicated stamped ceramics in the 9He141 collection. Barnett phase assemblages retain a small proportion of Dallas (shell tempered) sherds and Lamar Complicated Stamped ceramics in the assemblage. Also, Lamar Complicated Stamped ceramics occur as a distinct majority type during the Bull Creek phase and are equally represented with Lamar Bold Incised ceramics in the later Avery Complex assemblages (Knight 1980:20). At site 9He141, no identifiable complicated stamped ceramics and only one shell tempered sherd were recovered. Assuming that the relative frequency of complicated stamped and shell tempered ceramics decrease through time, the collection recovered at Site 9He141 is assigned a mid to late sixteenth century date, placing it towards the terminal end of the Avery Complex and the early half of the Barnett Phase of north Georgia. Future work at sites such as 9He141 can contribute important information on the assemblage composition and temporal range of Mississippian period occupations in the project area. As noted in the discussion above, the archeological collection recovered at Site 9He141 is similar to but different from other previously documented Late Mississippian assemblages. For this reason, Site 9He141 is recommended as a potentially significant site, which could provide important information on local cultural assemblages and the dating of archeological deposits representative of the late prehistoric era.

Site 9He142 yielded 12 Late Mississippian sherds from a small forested ridge. Erosion had removed most of the soils in this area and all of the artifacts were recovered in the severely disturbed upper deposits. The small size of the ridge in addition to the disturbances noted in the shovel test pit profiles resulted in a non-significant evaluation for this site.

Phase II Site Testing

The significance evaluations for the six sites included in the Phase II intensive testing program are discussed on a site by site basis below. Individual cultural components are identified and relevant research domains are discussed for those sites evaluated as significant. Also, a brief discussion is provided on the impacts that have occurred on the various cultural components. Following the site significance evaluations, recommendations for mitigating adverse impacts are presented for the significant sites.

Site 9Tp366

Site 9Tp366 yielded evidence of three major cultural components including Late Archaic, Middle Woodland, and Late Mississippian occupations. All three components have been impacted by scouring and wave action due to lake level fluctuations. The Late Mississippian Lamar occupation located along the western end of the site has been most affected by scouring due to stream eddies formed below the bend in the river. These currents have washed away the top solum from this part of the site creating a large mudflat area. Today, only a narrow portion of the terrace containing the Late Mississippian component remains intact. Another smaller and possibly separate Late Mississippian component is found on the east end of the site near the stream and river confluence. This component exhibits a light density of materials and is mixed with components representative of other cultural periods. In contrast, the Middle Woodland and Late Archaic occupations are located east of the eddy formed mudflat area where the impacts are restricted to shoreline erosion caused by scouring and wave action. South of the shoreline, the interior of the site remains intact with deeply buried soil deposits. Diagnostic artifacts recovered from two excavation units revealed buried Middle Woodland and Late Archaic components between 40 to 80 cm below the ground surface. The Middle Woodland component occurred in the upper half of soil stratum IV, between 40 to 60 cm below surface, while Late Archaic artifacts occurred in the lower half of the same stratum between 60 and 80 cm below surface. In the excavation unit near the confluence, the Middle Woodland component is mixed with a Late Mississippian component, but the Late Archaic component is well below both of these later occupations.

Identification of Middle Woodland and Late Archaic components within separate stratigraphic contexts provides the opportunity to investigate the nature of cultural adaptations and tool assemblages spanning a period from 3,000 B. C. to A. D. 300. To date little information exists concerning this time period within the project area. The occurrence of Middle Woodland check stamped ceramics recovered by controlled surface collections, shovel test pits, and excavation units in addition to their association with many of the deflated rock features (albeit this a tenuous association) indicates a substantial Middle Woodland occupation covering an area approximately 0.5 hectares (1.1 acres) in size. This component begins at the stream confluence and extends for approximately 90 meters west along the shoreline and reaches as far south as the top of the levee crest. The

central and western portion of this component is deeply buried (40 cm) and spatially differentiated (both horizontally and vertically) from other cultural components.

Comparisons between the Middle Woodland tool assemblages at Site 9Tp366 and piedmont/coastal plain Middle Woodland assemblages would be premature at this time. The sample of sherds recovered at 9Tp366 is relatively small and the geographic ranges covered by the Shorter, Mandeville, Crooked Creek, Post Kellog, and Cartersville occupations are not well defined. However, a number of minority type wares including unidentified simple stamped, fabric impressed, and Swift Creek Complicated Stamped sherds have been found on the eroded surface of Site 9Tp366. The co-occurrence of these ceramic types on the site surface suggest a possible Mandeville phase occupation, but until these decorated wares are found in association with the Middle Woodland ceramics, this affiliation cannot be substantiated.

Data recovery operations conducted at site 9Tp366 can provide information on assemblage composition and the geographical distribution of local Middle Woodland phases present in the project area. South of West Point Lake, Knight and Mistovich (1984, 1986) identified several Middle Woodland phases including Shorter, Mandeville, and an unnamed transitional phase following Mandeville II. In the eastern piedmont region of Alabama, the Middle Woodland Crooked Creek Complex (Knight 1980) occupied the Tallapoosa drainage at about the same time as Mandeville groups occupied the interior coastal plain Province. Currently little is known about the subsistence economy, settlement pattern, or socio-political organization of any these Middle Woodland phases. Additional documentation of Middle Woodland component at 9Tp366 can address a number of research questions including:

1. Does the ceramic assemblage at Site 9Tp366 exhibit the same variability (both macro and micro) in paste and surface treatments as other Middle Woodland ceramic assemblages? If so, do these ceramic attributes exhibit non-random spatial patterning across the site area? If not, can the differences be best explained in terms of functional variability of tool assemblages or distinct ethnic identities.

2. Are the same types of ceramic vessels used at Site 9Tp366 as other Middle Woodland occupations?

3. How does the material collection from Site 9Tp366 compare with other Middle Woodland assemblages collected by previous investigators in the project area ?

4. Are specialized activity areas present at the site? If so, what are their purposes.

5. What were the subsistence practices used by the site occupants? What is the function of the rock clusters commonly found on Middle Woodland sites?

6. Does the Middle Woodland component identified at Site 9Tp366 represent a single occupation or multiple reoccupations of the same area? Can any of these occupation(s) be dated by radiometric analysis?

7. Is the Middle Woodland occupation at Site 9Tp366 affiliated more closely to Middle Woodland groups occupying the piedmont or fall line and interior coastal plain regions? If so, which ones?

8. If the Middle Woodland occupation at Site 9Tp366 is affiliated with groups located further south along the Chattahoochee River, is there a connection between this occupation and that of Mandeville, the large Middle Woodland ceremonial center?

In addition to the Middle Woodland component, both excavation units yielded data concerning a deeply buried Late Archaic occupation that begins near the stream and river confluence and continues in a westerly direction for approximately 50 meters. The recovery of a McIntire-like projectile point, steatite bowl fragments, two small fiber tempered sherds, and debitage from the excavation units as well as the simple stamped fiber tempered ceramics recovered along the shoreline suggests the presence of an extensive Late Archaic occupation of the site. In Alabama, McIntire points and fiber tempered pottery are associated with Late Archaic components found in the Pickwick, Guntersville, and Wheeler Basins (Cambron and Hulse 1975; Walthall 1980). Within these regions, the components are distributed both along the major river bottoms and in the uplands. Apparently the bottom-land components focused on the exploitation of riverine resources (particularly shellfish), while the upland components exhibited a more generalized hunting and gathering adaptation for the procurement of terrestrial resources. At West Point Lake, the bottom-land location of Site 9Tp366 would suggest a riverine focused economy, however, no such evidence was gathered during the present investigation. This could be due to both the poor preservational qualities of the soil or sampling error. Only two 1 by 2 meter units were excavated to a sufficient deep to recover information pertaining to the Late Archaic component at Site 9Tp366. Future data recovery operations at Site 9Tp366 can provide important new information concerning the settlement-subsistence strategies adopted by local piedmont groups, which then can be compared to contemporaneous groups living to the west and north of the project area.

Additional investigations should also focus on resolving the disagreement concerning the temporal ordering of Late Archaic ceramics in west Georgia. McMichael and Kellar (1960) argue that plain fiber tempered ceramics are earlier than decorated fiber tempered ceramics, while Knight and Mistovich (1984) state that decorated fiber tempered ceramics occurred first in the sequence. The presence of both steatite bowls and simple stamped fiber tempered ceramics at site 9Tp366 may represent the northern extension of the simple stamping found in the Norwood pottery tradition originally defined for the northwest coast of Florida

(Phelps 1965). This ceramic tradition has been radiocarbon dated to approximately 1012 B. C. The discovery of a deeply buried, intact Late Archaic occupation at site 9Tp366 is important therefore for the information it contains on the distribution and temporal ordering of fiber tempered ceramics in west central Georgia. Besides the information it can provide on sequence definition, other questions concerning the Late Archaic component at Site 9Tp366 include:

1. Is the Late Archaic occupation at Site 9Tp366 affiliated more closely to Late Archaic groups occupying the piedmont or fall line and interior coastal plain regions? If so, which ones?

2. Within the stone tool assemblage, are locally occurring raw materials only used in the production of stone tools? Also, what types of tool production strategies occur at the site.

3. How does the material collection from Site 9Tp366 compare with other Late Archaic assemblages collected by previous investigators in the project area?

4. Are specialized activity areas present at the site? If so, what are their purposes?

5. What were the subsistence practices used by the site occupants? Can these practices be related to existing subsistence-settlement models proposed for other Late Archaic Period Period sites located in different areas (Sassaman 1988 House and Ballenger 1976, Anderson and Joseph 1988; Knight and Mistovich 1984)?

6. Is the Late Archaic component identified at Site 9Tp366 represent a single occupation or multiple reoccupations of the same area? Can any of these occupation(s) be dated by radiometric analysis?

Site 9Tp62

Site 9Tp62 yielded evidence of Early and Middle Archaic, Middle Woodland, and Late Mississippian occupations. Both the Early and Middle Archaic components are marked by the presence of single projectile point types. The Middle Woodland component is identified by the presence of a small number of diagnostic sherds found in shovel test pits and the presence of a large pit feature. The Late Mississippian component represents the most extensive use of the site, and is marked by the presence of plain smoothed body sherds, incised, complicated stamped, folded, and appliqued finger pinched ceramics. Based on an analysis of chronologically sensitive ceramic attributes, the Mississippian component was divided into two separate occupations.

The Late Mississippian occupation located along the eastern side of the site has been most affected by scouring due to high stream velocity along the present day shoreline. A separate but later Late Mississippian component, located along

the small tributary and interior portions of the site, has received less of an impact partly because of its location away from the shoreline resulting in less disturbances by scouring and wave action. Both the Late Mississippian and Middle Woodland components contained within the central portion of the site have been impacted by plowing. This impact has churned most of the existing soils down to red clay subsoil, however one area maintains the presence of a thin, buried, cultural midden.

The material assemblage recovered at Site 9Tp62 indicates the presence of a major occupation during the Late Mississippian Lamar period. An analysis of ceramic rim fold widths and their spatial distributions suggests either an expansion of the site area during the later phase of the occupation or two unrelated occupations, with the earlier occupation being focused along the main river channel and the later occupation centered around the interior portion of the terrace and along the small drainage to the south. Within the site interior, the remnants of a buried cultural midden containing charcoal flecks and pieces of bone was discovered during the shovel test investigations. Although partially disturbed by plowing, the midden exhibited sufficient integrity to be observed in the shovel test profiles below the recently deposited sands and above the red clay subsoil. Additional shovel tests conducted along the terrace revealed that the midden deposit covered an an area of 1600 square meters (0.4 acres). Artifactual materials recovered from the midden were predominantly bold incised and plain pottery sherds distinctive of the Late Mississippian period.

Examination of the contact zone between the midden deposit and the red clay subsoil proceeded by removing the midden deposit over a 5 by 5 meter area. Within this block unit, a dark circular stain intruding into the clay subsoil was observed and subsequently excavated. Surprisingly, this feature yielded numerous artifacts and a radiocarbon date indicative of the Middle Woodland period. Although minor quantities of diagnostic Middle Woodland artifacts were recovered by the surface collection and shovel test units, the contents of this feature suggest a major occupation in the site vicinity. The macroplant assemblage recovered from the feature indicates the inhabitants practiced a mixed economy based upon gathering of nuts and persimmon and cultivation of at least four components of the pre-maize gardening system. This form of cultivation has been recognized in Middle Woodland components throughout the eastern United States. The recovery of three different nut species, goosefoot, knotweed, maygrass, and persimmon suggest an occupation spanning the summer and fall seasons.

A very small percentage (1.6 percent) of the midden area was examined during the present investigation, and other Middle Woodland and Late Mississippian features are expected to occur within this area of the site. The high species density and relative diversity of the seeds and nutshell assemblage recovered from the one excavated feature indicates the excellent preservation of ethnobotanical samples at the site. The excavation of other equally preserved features would provide important new information on evolving subsistence

strategies and further document the material assemblages of different cultural groups occupying the Middle Chattahoochee River Drainage.

In the southern-most portion of the site, a second block excavation revealed the presence of postholes suggestive of architectural remains. No alignments in the post patterns were observed; however, only 75 square meters (3.0 percent of the site area lying between the present day shoreline and the small tributary) was examined. It was in this portion of the site that the ceramic analysis revealed the spatial separation of diagnostic traits (rim fold widths) indicative of village expansion or a reoccupation of the site by a later group. Future analysis focusing on the spatial relationships between features as well as their contents, would provide important information on both the number of Late Mississippian components present at the site and how this occupation evolved through time.

The presence of well preserved features and the spatial integrity of Late Mississippian components indicates that Site 9Tp62 contains significant data pertaining to both Woodland and Mississippian adaptations in the Middle Chattahoochee River Valley. Other research questions pertaining to the Site 9Tp62 occupations include:

1. What is the historical, stylistic, and functional significance of the ceramic types found at Site 9Tp62? Does ceramic variability exist between the two Late Mississippian components identified at the site?

2. What is the relative importance of different botanic and faunal species in Middle Woodland and Late Mississippian diets? What botanical and faunal materials persist in the buried midden deposit?

3. If domestic structures can be identified at Site 9Tp62, do they exhibit the same construction techniques as structures located in different regions? If not, how do they differ and what is the significance of these differences?

4. Are specialized activity areas present on this site? If so, what activities were being conducted on the site? What components are they associated with?

5. Did Site 9Tp62 serve as a special function site for Middle Woodland groups inhabiting different locations in the valley?

6. What is the function of this site for the various cultural groups occupying it? Does it change over time? If so, how.

7. Are the Late Mississippian occupations at Site 9Tp62 linked to the Park and Avery Mound Complex or do they have affinities to other Late Mississippian groups located elsewhere?

Site 9He76

Site 9He76 yielded evidence of an Early Archaic, Middle Archaic, Middle Woodland, and an extensive Late Mississippian and/or Protohistoric occupation(s). The Early and Middle Archaic occupations are marked by the presence of diagnostic projectile points, while the Middle Woodland component is represented by the presence of both projectile points and ceramics; albeit all three of these occupations are not strongly expressed in the site collection. Conversely, the collections made from the Late Mississippian and/or Protohistoric occupation(s) represent the overwhelming majority of artifact types found at the site. Plain smoothed body sherds, incised, and folded and appliqued finger pinched rims comprise most of the surface collections, while a number of brushed ceramics were found in several of the pit features excavated at the site.

The site is the only site that is permanently above normal pool level of West Point Lake and has not been severely impacted by the processes of scouring and wave action. As noted in the impact section, the major impact on this site has been from agricultural activities and the general deflation of the plow zone caused by erosion.

Current knowledge concerning late sixteenth or early seventeenth-century Late Mississippian occupations in the Middle Chattahoochee River drainage is very poor. Previous investigations in the West Point Lake region have characterized these occupations as either simply "Lamar" (Hally and Rudolph 1986), Bull Creek Phase (Hally and Oertel 1977), or Avery Complex (Knight 1980). The general utility of any of these phase designations for the occupations are so limited that some archeologists believe that totally new cultural phase designations for these occupations are appropriate (David Hally personal communication 1990; Knight 1980). However, the assignment of new cultural phase designations for the project area would be premature, and is not advocated until excavations focusing on individual components are conducted. Besides the problem of cultural sequence development, basic information is lacking on research topics including subsistence-settlement patterns and socio-political organization (Hally and Rudolph 1986).

The macroplant assemblage from Features 13, 15, and 17 at 9He76 indicate the site inhabitants practiced a mixed economy based upon gathering of nuts, fleshy fruits, and on the intensive cultivation of maize. The presence of abundant corn cupules in the macroplant assemblage suggests that gardening was practiced at the site locality. This contention is supported by the high ubiquity of goosefoot, an herbaceous weed that would have favored the disturbed environment of agricultural fields. The overall macroplant assemblage suggest that the primary activity of the site occupants was agriculture. Future excavations of the numerous intact features can provide information on the full range of activities that were conducted on the site and seasons in which they were conducted. Also, information pertaining to individual structures and the internal arrangement of the occupation(s) can be further investigated. Comparisons of the Site 9He76 material assemblage with other known Late Mississippian assemblages both

within and outside the Middle Chattahoochee Basin are desirable. A full range of questions concerning Late Mississippian occupations, most of which are applicable to Site 9He76, are presented by Hally and Rudolph (1986:78, 81) and will not be reiterated here.

Site 9Tp867

Site 9Tp867 yielded evidence Early Archaic, Late Archaic, and Historic Creek occupations. Both the Early and Late Archaic occupations are identified by the presence of diagnostic projectile points found on the site surface. The Historic Creek occupation however, represents the largest and most intense occupation, marked by the overwhelming presence of ceramic types Ocmulgee Fields Incised and Chattahoochee Brushed. All of these components have been severely impacted by scouring and wave action from the lake. So severe is this impact that all soils down to the red clay subsoil have been removed or relocated on the sites' surface.

As discussed in the Cultural Synthesis section of this report, the historian Mark Fretwell (1954) has reconstructed the route of Benjamin Hawkins, who first explored this part of the Chattahoochee Valley in 1798 and recorded the locations of several Creek towns. Huscher (1972), using Fretwell's information, was able to identify the location of Creek sites in the southern part of the project area, but it appears that Fretwell's interpretation of Hawkin's route is much less accurate above this point. Examination of the state site files indicates no known historic aboriginal sites at the locations suggested by Fretwell's reconstruction north of the Creek town of Okfuskenena (9Tp9 or Burnt Village) (Dr. Marvin Smith personal communication 1990). At the present time, it is not possible to identify Site 9Tp867, which is located north of Okfuskenena, as one of the Creek villages first visited by Hawkins.

The disturbances caused by the frequent inundation of Site 9Tp867 greatly reduces the scientific valve of this site and no further work is recommended. The extensive controlled surface collection made during the present project should serve future research needs.

Site 9He128

Site 9He128 yielded evidence of Historic Creek and Woodland Period occupations. The Woodland occupation was marked by the presence of cord marked, simple stamped, and check stamped ceramics and diagnostic projectile points. These artifacts were thinly scattered across the site's surface. The Historic Creek occupation, likewise, was thinly distributed across the site and was identified on the basis of incised and brushed ceramics. All of these components have been severely impacted by scouring and wave action from the lake. Test unit excavations and profiles cut along the shoreline indicate soil disturbances down to the present water table. The disturbances are considered so

great at this site that it's scientific value has been lost. No additional work is recommended at Site 9He128.

Site 9Tp294

Site 9Tp294 exhibited evidence of at least three major occupations including the Middle and Late Archaic as well as a Late Mississippian occupation. The site exhibited a light density of materials including a projectile point and several sand tempered sherds dating to the Woodland Period. The large quantity of debitage found on this site is probably the result of Archaic period occupations, but erosion has obliterated any possibility of relating these materials to a specific component. Investigation of the possible preserved midden at the site proved that the soil horizon was actually a disturbed plow zone that contained burned and decomposing wood material. The origin of this zone is probably associated with vegetation clearing activities for the lake construction.

The site has been heavily impacted by scouring and wave action resulting in the removal of the overlying soils from the site. As a result, the scientific value of this site for future research has been greatly reduced. No additional work is recommended.

MITIGATION OF ADVERSE IMPACTS

Archeological resources are being adversely affected by the normal operation of West Point Lake and by agricultural activities conducted within the project area. Further loss of these resources can be ameliorated to some extent by a specified program of site testing and the implementation of mitigation alternatives. Site testing is recommended on the three survey sites determined to be potentially significant. The purpose of this testing program would be to investigate the aerial extent, both vertically and horizontally, of the components represented at the sites, to acknowledge the research potential of each component, to determine adverse/no adverse impact for each site, and to devise an effective data recovery plan if necessary. Conversely, the three sites determined by the present project to be adversely impacted are recommended for alternative mitigative procedures. Unfortunately, all but one of these sites are being impacted by the normal operation of West Point Lake, which eliminates most means for protecting these resources. In the case of these two sites, a work plan involving data recovery will be discussed. Alternative mitigative measures including data recovery and preservation in place are provided for the one resource located above the normal pool level. Discussion of the the sites recommended as potentially significant is presented first, followed by a discussion of the sites recommended as eligible for inclusion to the National Register of Historic Places (NRHP).

Sites Recommended as Potentially Significant

Site 9He138

Site 9He138 is recommended for further testing to determine its eligibility for inclusion to the NRHP. The proposed field work activities include the excavation of systematically placed shovel test units and opportunistically placed controlled excavation units. Shovel tests will be standard round shovel excavations with all soil removed from these excavations (approximately 30 cm in diameter) screened through 1/4 inch hardware cloth mesh. These test units will be placed on a 10 meter grid until three consecutive negative tests are encountered on a transect. Shovel test forms would be completed for each test unit location, with special notations on the soil stratigraphy encountered and the types of cultural materials present. The location of all units will be placed on a site topographic map. The purpose of the shovel test data will be to determine the site boundaries and the artifact density within site boundaries. This information will then be used to determine the placement of the larger controlled excavation units.

Based on the results of the shovel testing operation, sixteen 1 by 1 meter controlled excavation units will be located in the areas exhibiting the greatest potential for midden and/or feature preservation and the recovery of artifacts. The size of these test units should permit the careful excavation and recovery of artifacts from individual soil horizons occurring at the site. Fill from all units will be screened through 1/4 inch hardware cloth. The first phase of excavation will require the removal of the plow zone (or recent alluvial deposits) from each unit. This zone will be treated as a discrete soil strata and will be excavated in its entirety. Excavation will then proceed in 10 cm arbitrary levels or until a different soil horizon is encountered. A unit/level form will be completed for each excavation unit completed. This form will record the initial and terminal elevations; the soils encountered (with corresponding Munsell soil color designations); the presence, types, and density of cultural materials; and the presence of any features or soil anomalies. Should the latter appear, a unit sketch plan will be made on the gridded reverse of the unit form. If cultural features are discovered during the shovel test operation, the overburden covering these features will be quickly removed so that a plan view drawing can be made and the contents of the feature recovered. All feature fill will be screened through 1/4 inch mesh hardware cloth. Each excavated feature will be drawn in profile and plan, and photographed, and a feature form will be completed. Also, special samples including ethnobotanical and remains suitable for radiocarbon dating shall be taken from each feature.

In addition to the shovel test and excavation unit procedures outlined above, a controlled surface collection of the lithic concentration found along the shoreline should be made for the purpose of documenting the production and use of lithic tools on the site. The surface collection grid should correspond to the grid used during the shovel test operation so that each surface collection unit will be 10 meters on a side.

Testing as proposed is estimated to require 256 personhours for the field phase, 192 personhours for the laboratory analysis, and 160 personhours for the report phase.

Site 9He140

Site 9He140 is located in a wooded environment and is apparently protected from massive erosional disturbances. However, further work should be undertaken at this site to document the integrity of the cultural deposits and its boundaries. To accomplish this task, the method and recordation procedures outlined for Site 9He138 should be followed. Given the relative small size of this site (50 by 30 meters), excavation units (50 by 50 cm) will be substituted for shovel test units and will be excavated on a 10 meter grid until two consecutive negative tests are encountered on a transect. Allowances for additional work should be taken into consideration in case the site is significantly larger than originally defined. Information derived from these larger units will provide more meaningful data for making significance determinations at this site. Other field work activities will include the preparation of a detailed site topographic map and the excavation of any cultural features found at the site. The techniques for excavating features should follow those described for Site 9He138.

Testing as proposed is estimated to require 96 personhours for the field phase, 72 personhours for the laboratory analysis, and 100 personhours for the report phase.

Site 9He141

Site 9He141, like Site 9He140, is located above the permanent pool level of the lake and has not been impacted by scouring and wave action. The predominant form of impact occuring at this location is the churning of soils and erosion caused by agricultural activities. Although the site has been plowed for many years, a large number of artifacts are still present, suggesting the possibility of intact subsurface features and relatively little looting by local artifact collectors. Also, the relatively large number of artifacts found along the periphery of the plowed area indicates that an unknown portion of the site area lies outside of the agricultural plot, which may also contain intact cultural deposits. Since the site is not being impacted by the lake, several alternatives for avoiding future adverse impacts are available. The first alternative is preservation, which involves placing the site area off limits for future agricultural activities. Occasional monitoring by Corps of Engineers staff members would be necessary to insure the preservation of the site if this option is chosen. The second alternative involves the archeological testing of the site to determine its significance. If this alternative is chosen, the following work plan is recommended. The investigation would begin with a controlled surface collection of the plow zone deposits. This procedure would involve the use of heavy equipment to plow and disc the site area. Once this has been accomplished, an appropriate random sampling strategy should be

implemented to document the distribution and character of the surface materials. Information obtained from the surface collection units would then be used to select four separate areas for mechanical stripping of the overburden deposits. The total area included in the mechanical stripping operation should equal approximately 400 square meters of site area. The purpose of removing the plow zone in these areas is to locate and investigate intact subsurface cultural features. All features found during this phase of the research should be excavated in the manner described for Site 9He138. A detailed topographic map illustrating all phase of the work should be constructed for the site.

Testing as proposed is estimated to require 288 personhours for the field phase, 240 personhours for the laboratory analysis, and 240 personhours for the report phase.

Sites Recommended as Eligible to the NRHP

Site 9Tp366

The data recovery plan devised for Site 9Tp366 pertains to both the Late Archaic and Middle Woodland components. To address the research questions (see significance evaluations section above) posed for the these two cultural components, a 10 by 10 meter excavation block and four dispersed 2 by 2 meter excavation units are recommended. The block excavation is of sufficient size to address the questions concerning the composition and stylistic variations in the cultural assemblages, definition of activity areas, functional nature of the individual components, and subsistence activities conducted at the site. Alternatively, the excavation of four dispersed 2 by 2 meter excavation units, located in the area between the block and Excavation Unit 1, will provide data concerning the intensity of the occupations over larger areas of the site. Materials from these units can be compared to the block excavations for determining intrasite variability in tool use and production, and assess the number of occupations within each component are present.

The block should be placed above the present shoreline in the area adjacent to the location of Excavation Unit 2. The block excavation would proceed by rapidly removing (either manually or with a front end loader) the top 30 centimeters of overburden from the block area, thus exposing the transition zone between soil horizons IV and V as noted in the Excavation Unit 2 profile. At this depth, the block area would be gridded at one meter intervals and excavated in 1 by 1 meter squares. The excavation of the individual 1 by 1 meter units will be accomplished using standard excavation procedures. Excavation will proceed in 10 cm arbitrary levels with all fill from the units being screened through 1/4 inch hardware cloth. A unit/level form will be completed for each excavated level. This form will record the initial and terminal elevations; the soils encountered (with corresponding Munsell soil color designations); the presence, types, and density of cultural materials; and the presence of any features or soil anomalies.

Should the latter appear, a unit sketch plan will be made on the gridded reverse of the unit/level form. Unit summary forms will be filled out at the completion of each unit. All levels of all units will be photographed in color and black and white, and 5 liter soil samples will be taken from each feature encountered in the block. All apparent cultural features will be profiled in order to insure that they are indeed cultural, and in order to determine function and age. All feature fill (except the special samples) will be screened through 1/4 inch mesh hardware cloth. Each excavated feature will be drawn in profile and plan, and photographed, and a feature form will be completed. Since the Middle Woodland component was confined to the upper portion of the Zone V soil horizon (40 to 60 centimeters below surface), it is expected that no more than two arbitrary 10 centimeter levels within each 1 by 1 meter excavation unit will be necessary to fully document the Middle Woodland component. Below the 60 cm depth, both 2 by 2 meter excavation units (dug during the present project) yielded Late Archaic materials including a projectile point, fiber tempered sherds, steatite bowl fragment, and debitage. To document this latter component it is proposed to continue the excavation of the block to a depth of 80 cm or until a culturally sterile level is encountered within the 1 by 1 meter units.

The excavation procedure of the dispersed 2 by 2 meter units will follow the methods purposed for the block excavation units. The only difference in the approach to digging these units pertains to the amount of overburden that can be quickly disposed of before the excavation of 10 cm arbitrary levels begins. It is recommended that once an area is selected for excavation that a tube auger be used to determine the depth at which the dark yellowish brown (10YR4/4) soil horizon occurs. It was this horizon in Excavation Unit 2, that yielded the "pure" Middle Woodland and Late Archaic components. Once the depth of this horizon is known, the overburden can be quickly removed and the excavation 10 cm levels begun.

Mitigation as proposed is estimated to require 600 personhours for the field phase, 600 personhours for the laboratory analysis, and 400 personhours for the report phase.

Site 9Tp62

The purposed data recovery work plan for Site 9Tp62 pertains to both the Middle Woodland and Late Mississippian components identified at the site. In the area containing the cultural midden deposit, it is recommended that three dispersed 2 by 2 meter excavation units and a 10 by 10 meter block be excavated to recover data concerning both of these components. Excavation of the 2 by 2 meter units should follow standard excavation practices as outlined above. The purpose of these units is to document the artifact content and preservational qualities of both the plow zone and the underlying midden and appropriate analytical samples including ethnobotanical and materials suitable for radiocarbon analysis should be collected from the midden soils. To accomplish this task, the units will be excavated starting at the top of the plow zone and proceed in natural levels until subsoil is reached. Information obtained from these units will then be used to

locate a 10 by 10 meter block over the midden area. Within the block the overburden (including the midden zone) will be rapidly removed with the aid of shovels down to the subsoil horizon. All features observed in the block and 2 by 2 meter excavation units will be mapped and fully excavated using the procedures described earlier.

An additional 20 by 20 meter block is recommended for the investigation of the Late Mississippian occupation located above the shoreline cut on the southern end of the site. This area yielded evidence of two separate Late Mississippian occupations and numerous posthole features. The recommended size of the block in this area is large enough to discern structural patterns of posts and obtain information on the Late Mississippian component. The excavation of the block will proceed by hand and will involve the removal of the soils that cover the red clay subsoil. As with the 10 by 10 meter block excavation, the overburden in this southern block will be removed quickly without screening and all observed cultural features will be mapped and fully excavated.

Mitigation as proposed is estimated to require 480 personhours for the field phase, 480 personhours for the laboratory analysis, and 360 personhours for the report phase.

Site 9He76

Recommendations concerning the Late Mississippian and/or Protohistoric occupation(s) of Site 9He76 involve several alternatives. The first alternative is to preserve the area (all lands north and east of the marsh) of the site containing intact cultural features. This would involve placing the designated area off limits to future agricultural activities and occasional monitoring by Corps staff personnel to insure it's continued protection.

The second alternative is a data recovery operation, which would recover most of the significant remains present at the site. The recommended work plan would involve the stripping off of the plow zone deposits and excavation of the cultural features present. Mechanical stripping will be accomplished in two steps due to the depth of the plow zone deposits and the size of the area to be stripped. The first step would involve the use of a bulldozer to remove most of the overburden. Next a road grader would finish the operation by removing the lower most portion of the plow zone and smooth the base of the excavations. After the grader work is completed, shovel skimming of the subsoil surface will be necessary to define the boundaries of the freshly exposed features.

In order to determine the exaction location or locations of strip blocks it is recommended that transects, spaced approximately 50 meters apart and the width of a bulldozer blade, be cut across the site area. These strip transects should begin approximately 70 meters north of the marsh (approximately where Strip Area I was located) and extend to the north to a point where features are no longer encountered. The number of these strips will be determined also by the

distribution of cultural features found along the east-west axis of the site. Information concerning feature types and densities obtained from the strip transects will then be used to locate areas of additional stripping. At this point, it must be at the discretion of the project archeologist as to how much stripping in a particular area is necessary. Either the stripping of one large contiguous area or dispersed smaller strip areas may be necessary. The stripping of one large area offers the advantage of investigating the distribution of features and feature types within a portion of the site area, however it may miss significant components of the occupations found in other areas of the site. Of course, the opposite is true if the option of using a larger number of dispersed smaller strip areas is implemented. Again the strategy that is most effective for maximizing the information return will be best determined by the project archeologist doing the work. It is recommended that an area totalling approximately 5,000 square meters be inspected during the investigation.

Within the strip area it may become necessary because of the number of features to sample. Using the information on feature density recovered during the present project, it is estimated that as many as 600 features may be exposed by the data recovery operation. With this in mind, it is recommended that a stratified random sample in combination with a judgmental sample be implemented for determining the features to be excavated. The stratified random sample should include feature types created from plan view shapes and sizes. The judgmental sample can be used to supplement the stratified random sample by incorporating data from unusual features or clusters of features that would be missed by the random sample. All features observed during excavation units should be mapped and those features selected for excavation should use standard feature excavation procedures as described earlier.

Mitigation as proposed is estimated to require 2,240 personhours for the field phase; 2,240 personhours for the laboratory analysis; and 1,100 personhours for the report phase.

CONCLUSIONS

The West Point Lake Survey and Site Testing Project recovered over 23,800 artifacts collected from 1,104 separate proveniences. The information obtained from these materials indicates that occupational history of the Middle Chattahoochee Valley begins as early as 8,000 years ago and continues up to the present with only brief periods of light use or abandonment. Major components representative of the Middle Woodland, Late Mississippian, and Historic Creek were found and examined. The investigations revealed substantial occupations of the valley dating to the Middle Woodland Period and the excavation of a large well preserved pit feature yielded the earliest known use of cultigens for the region. It appears that the most intense use of the valley occurred during the Late Mississippian Period. Material remains recovered from these sites indicate large village occupations supported by a mixed economy based on hunting, gathering, and agriculture. The exact chronology of this later period is not well established

and the ceramic assemblages exhibit distinct differences from assemblages recovered from other drainages in the Georgia piedmont. Hopefully, the observations and results of the present research will serve as a baseline for future investigations within the Middle Chattahoochee River Valley.

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